

Exhibit C



Contract (Long Form)

This is a Contract between the below named Contractor ("Contractor"), Campos EPC, LLC, a Colorado limited liability company and Pacific Gas and Electric Company ("PG&E"), a California corporation with its headquarters located at 77 Beale Street, San Francisco, California 94105.

Contractor's Legal Name:	Campos EPC, LLC	PG&E Contract No. C3452
Contractor's Address:	1401 Blake Street Denver, Colorado 80202	This Contract consists of 93 pages.

Project Name: Engineering, Design and Drafting Services

Job Location: Various PG&E Natural Gas Projects in California

WORK: Contractor shall, at its own risk and expense, perform the Work described in this Contract and furnish all labor, equipment, and materials necessary to complete the Work as summarized below and as more fully described in Attachment 1, Specific Conditions Engineering & Technical Services. This is not an exclusive Contract. This Contract does not guarantee Contractor any Work nor is there any guarantee as to any volume or duration of Work.

PG&E desires Contractor to provide Engineering and Technical Services in support of various PG&E natural gas transmission, distribution and stations projects system-wide. Engineering Services include but are not limited to: Project Scope Package Creation, Design, Drafting, Engineering, Data Validation, Engineering Oversight during Construction, Subject Matter Expertise, Budgeting, Equipment and Materials Procurement, and Project Management Services in support of the Work.

ATTACHMENTS: Each of the following documents is attached to this Contract and incorporated herein by this reference:

Attachment 1: Specific Conditions Engineering & Technical Services (33 pages)

Attachment 2: General Conditions (52 pages)

Attachment 3: Engineering Services Labor Rates (4 pages)

Attachment 4: Discounts and Markup Structure (2 page)

CONTRACT TERM: This Contract is effective upon signature by both parties and expires on December 31, 2020.

COMPLETION: This Contract shall terminate upon the later of (1) December 31, 2020 or (2) the date all obligations under all Contract Work Authorizations have been fully performed.

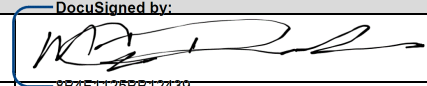
INSURANCE: Contractor shall maintain insurance in accordance with Section 12 of the General Conditions.

TERMS OF PAYMENT: In accordance with Section 7.1 of the General Conditions

CONSIDERATION: As full consideration for satisfactory performance of the Work by Contractor, PG&E's total obligation to Contractor shall not exceed the following amount. This amount is inclusive of all taxes incurred in the performance of the Work. Any change to this amount shall only be authorized in writing by a PG&E Contract Change Order, fully executed by both PG&E and Contractor.

TOTAL: The sum of all duly authorized Contract Work Authorizations.

THE PARTIES, BY SIGNATURE OF THEIR AUTHORIZED REPRESENTATIVES, HEREBY AGREE TO THE TERMS OF THIS CONTRACT.

PACIFIC GAS AND ELECTRIC COMPANY		CONTRACTOR: Campos EPC, LLC	
Signature		Signature	
Name	Steven Coleman	Name	Cory Richins
Title	Sr. Director, Sourcing	Title	Director
Date	1/10/2018	Date	1/9/2018



PG&E Contract No. C3452

ADMINISTRATION			
PG&E Negotiator	Matt Udey	Contractor Representative	
Phone	925 968 8511	Phone	
Email	MDU1@PGE.com	Email	
Accounting Reference	As specified in each duly authorized Contract Work Authorization.		

INTERNAL PG&E USE ONLY			
Distribution Date			
Distribution of Copies	<input type="checkbox"/> Document Services (Signed Original Copy) Mail Code N5D 245 MARKET ST., SAN FRANCISCO	<input checked="" type="checkbox"/> Contractor (Signed Original Copy)	
	<input type="checkbox"/> Work Supervisor	<input type="checkbox"/> Manager	
	<input type="checkbox"/> Invoice Approver	<input type="checkbox"/> Supervisor	
	<input type="checkbox"/> V.P.	<input type="checkbox"/> Sourcing/ Purchasing	
	<input type="checkbox"/> Director	<input type="checkbox"/> Law	

Attachment 1: Specific Conditions Engineering & Technical Services

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1.0 Section One – Introduction and Purpose

- 1.1 These Specific Conditions establish the terms and conditions under which, Campos EPC, LLC, a Colorado limited liability company, (“Contractor”) shall provide Pacific Gas and Electric Company (“PG&E”) with Engineering Services including but not limited to: Project Scope Package Creation, Design, Drafting, Engineering, Data Validation, Engineering Oversight during Construction, Subject Matter Expertise, Budgeting, Equipment and Materials Procurement, and Project Management Services. Each assigned Project will follow general steps for completion as described in these Specific Conditions, General Conditions, and/or in each duly authorized Contract Work Authorization (“CWA”).

2.0 Section Two – Definitions

- 2.1 The definitions in the General Conditions are supplemented with the terms defined herein.
- 2.2 “Activity Codes”: Values assigned to schedule activities to organize the activities into manageable groups for updating, analyzing, reporting, plotting, and summarizing.
- 2.3 “Affiliate”: An entity that directly or indirectly controls, is controlled by, or is under common control with Contractor, where “control” means the ownership of, or the power to vote, at least fifty percent (50%) of the voting stock, shares or interest of Contractor.
- 2.4 “As-Built”: The manner, method and/or nature of actual physical plant construction. As-built drawings are submitted by Contractor upon completion of a project or a particular job, reflect all changes made in the standards and specifications and working drawings during the construction process, and show the exact dimensions, geometry, and location of all elements of the Work completed under the contract. Also called record drawings or as-builts.
- 2.5 “Asset(s)”: Plant, machinery, property, buildings, and other items that have a district value to gas operations.
- 2.6 “Asset Family”: A set of physical assets that interact or are interrelated so as to deliver a required business function or service (i.e. storage, compression/processing, measurement/control, transmission pipe, distribution mains, distribution services, customer connection equipment, and LNG/CNG).
- 2.7 “Asset Management”: Systematic and coordinated activities and practices through which PG&E Gas Operations personnel optimally and sustainably manage assets and asset families over their lifecycle in alignment with the Company vision, mission, values, stakeholder requirements and objectives.
- 2.8 “Asset Management Objectives”: (1) specific, measurable outcomes required of asset families in order to implement the asset management policy and asset management strategy and/or (2) detailed, measurable levels of performance or conditions required of the assets and/or (3) specific, measurable outcome required of the asset management system.
- 2.9 “Asset Management System”: The interrelated activities/processes, organizational structure, roles/responsibilities, planning activities, standards/procedures, information systems and resources needed to develop, implement, and improve the asset management policy, asset management strategy, asset management objectives, and asset management plans.
- 2.10 “Bill of Materials”: A listing of all the assemblies, subassemblies, parts, and raw materials that are needed to produce one unit of a finished product.
- 2.11 “Cal/OSHA”: California Occupational Safety and Health Administration.
- 2.12 “Contract Documents”: Collectively, the drawings, specifications, and other documents as more specifically defined and described in a duly executed Contract Work Authorization.

- 2.13 "CPUC": State of California Public Utilities Commission.
- 2.14 "Critical Path": The sequence of activities that must be completed on schedule for the entire Project to be completed on time. This is the longest path of activities from the Contract Start Date (CSD) to the Contract Completion Date (CCD).
- 2.15 "DOT": U.S. Department of Transportation.
- 2.16 "Data Date" (DD): The date used as the starting point for schedule calculations. For baseline schedules, the DD is the first day of the project, the CSD date. For subsequent schedule updates, the DD is the first workday of the remainder of the schedule, normally the first calendar day after the schedule close-out date (usually month end).
- 2.17 "EPA": U.S. Environmental Protection Agency.
- 2.18 "Final Completion Date": The Final Completion Date under this Contract shall be the date upon which (i) the Project has been fully completed and accepted by PG&E, (ii) all systems are functioning satisfactorily, (iii) certificates of completion have been issued for the entire Project and all conditions to final certificate of completion have been satisfied, (iv) the Contractor has satisfactorily completed all of its services required to be completed prior to the Final Completion Date hereunder, (v) all conditions to final payment to the Contractor pursuant to the construction contract have been satisfied, and (vi) all Project Costs, including internal PG&E charges, have been accounted for, and final payments to all consultants and the Contractor have been approved by Manager and PG&E.
- 2.19 "Free Float": The amount of time that the start or finish of an activity can be delayed without impacting the early start or finish of a successor activity. Free float is a calculated value.
- 2.20 "IFB": Issued for Bid
- 2.21 "IFC": Issued for Construction
- 2.22 "IFP": Issued for Permit
- 2.23 "Lag": An offset or delay from an activity to its successor or from its predecessor. Lag is physically defined by the scheduler. Lag is NOT Calculated.
- 2.24 "MSA": Master Service Agreement also referred to as Contract or Blanket Agreement establishes the general and specific conditions, general scope, and pricing and payment terms under which a CWA may be issued.
- 2.25 "MSDS": Material Safety Data Sheet(s).
- 2.26 "Near Critical Path": Defined as those paths of activities having a total float value equal to the total float value of the defined critical path (longest path) plus ten (10) working days.
- 2.27 "NERC": North American Electric Reliability Corporation
- 2.28 "NFPA": National Fire Protection Association.
- 2.29 "Open End": An activity that has either no predecessor or no successor relationships.
- 2.30 "OSHA": Occupational Safety and Health Administration.
- 2.31 "Out of Sequence Progress": All or a portion of an activity that has been completed before the predecessors to the activity are complete.
- 2.32 "Percent Complete": The portion of an activity that is complete based on physical measurement of the Scope of Work included in the activity that has been completed by the Contractor and accepted by PG&E.
- 2.33 "P&ID": Piping and Instrumentation Diagram (Mechanical).

- 2.34 "PG&E Work Supervisor": Defined as PG&E's employee representing PG&E's interest in connection with a CWA. Each CWA issued will describe a project and the PG&E's Project Manager's duties related to the project and will identify PG&E's Work Supervisor.
- 2.35 "PG&E Lead Project Engineer": Defined as the individual in charge of the engineering progress and performance of the project on behalf of PG&E.
- 2.36 "Preconstruction Conference": Meeting(s) held before the construction commences on the project, may also be referred to as the pre-job conference, or pre-job meeting.
- 2.37 "Professional Engineer (PE)": A California licensed or registered engineer legally permitted to practice engineering disciplines such as civil, mechanical, geotechnical in the state of California. Also within the meaning and intent of Professional Engineers Act, refers to a person engaged in the professional practice of rendering service or creative work requiring education, training and experience in engineering and the application of special knowledge of the mathematical, physical and engineering sciences in such professional or creative work as consultation, investigation, evaluation, planning or design of public or private utilities, structures, machines, processes, circuits, buildings, equipment or projects, and supervision of construction for the purpose of securing compliance with specifications and design for any such work.
- 2.38 "Project": Defined as the Project that will be described in a CWA accompanied by a technical Specification that includes the project budget, project contingency reserve, project cost, project schedule and the final project completion date.
- 2.39 "Project Control Schedule": A complete written schedule indicating the sequence and duration of various activities, including without limitation, design, document preparation, bidding and award of contracts and subcontracts, negotiation, and other pre-construction activities for construction of the Project. The Project Control Schedule shall establish dates by which any information is to be provided or tasks are to be accomplished. The Project Control Schedule shall be revised and updated, subject to approval by PG&E, or as provided in this Contract. Subject to additional Work or Changes in Work, the Project Control Schedule is for the administrative and management convenience of PG&E and Contractor and may not be relied upon by any Contractor in any way to establish any claims whatsoever, including claims for disruption or delay.
- 2.40 "Project Manager": Oversees projects. Plans, directs and supervises all operations included in programs and projects. Leads and manages the project team through all phases of project planning, execution, and closeout, consistent with established project delivery processes to the meet the Scope, schedule, budget and other specified requirements.
- 2.41 "QMS": Quality Management System
- 2.42 "Schedule Constraint": A restriction imposed on the start, finish, or duration of an activity on the Project Control Schedule.
- 2.43 "Site": Defined as the property owned or controlled by PG&E where the Work involved construction will be performed.
- 2.44 "Specification": A document which describes the essential technical requirements for items, materials or services including the procedures for determining whether or not the requirements have been met.
- 2.45 "SQA/QA/QC": Supplier Quality Assurance/Quality Assurance/Quality Control
- 2.46 "Target (Baseline)": A different version of the project schedule that can be compared to as the basis for measuring differences between the versions of the project schedule.
- 2.47 "Total Float": The calculated value for the amount of time that the start or finish of an activity can be delayed without impacting the Contract Completion Date.

- 2.48 Unifier: Primavera Unifier, the web-based software platform used by PG&E as a document management system to track, manage, store and exchange Contract documents with contractors.
- 2.49 "Work Breakdown Structure": WBS is a definition of project related activity codes, to be used by the Contractor to organize the Contractor's Project Control Schedule in a manner that facilitates PG&E's use of the PCS information.

3.0 Section Three – General Provisions

- 3.1 Contractor is regularly engaged in the business of providing comprehensive Work and is in the business of providing this Work to administer, implement, and manage PG&E Projects and the Contractor is fully licensed, financed and qualified to perform such Work.
- 3.2 Contractor agrees to perform its Work hereunder in a diligent, careful, and vigilant manner and to devote its good faith and reasonable efforts consistent with the goal of providing Work meeting the generally recognized industry standards of care, which shall be measured by PG&E using the Supplier Performance Score Card.
- 3.3 Contractor's performance of its obligations under this Contract will require close coordination with various PG&E departments and Contractors, including without limitation PG&E's law, insurance, telecommunications, project services, engineering, and maintenance and operations. Coordination of the Project-related activities of these PG&E functions is the responsibility of Contractor. In the event that any PG&E employee or user group is causing a delay or a deviation from the expected quality or cost of the Project, Contractor shall give notice to PG&E within 48 hours and shall assist PG&E to resolve the issue on a timely basis.
- 3.4 At PG&E's request, Contractor shall provide onsite presence at its project or office location, or alternatively have PG&E personnel onsite at Contractor's request when it is deemed necessary to discuss or negotiate items in person.
- 3.5 Contractor shall assign project team members including but not limited to project managers, engineers, project schedulers, as well as other skilled personnel all in accordance with the classifications and qualifications specified herein.
- 3.6 Classifications: Contractor's assigned project team members, whether employees or non-employee or contractors or subcontractors, shall meet the qualifications for their classification as provided in Attachment 3, Labor Rate Schedule. Contractor shall provide a Master Roster to PG&E's Contract Administration Group as well as the resumes of all employees, contractors or sub-contractors that may be assigned to PG&E projects during the term of the agreement. Resumes must include the number of years in specific roles and should be submitted in pdf format and the files should have the following naming convention:

Lastname_Firstname_Companyname_Date.pdf
- 3.7 Any changes to the Master Roster must be approved by PG&E's Contract Management team. An annual review of the Master Roster may be conducted to adjust for increases in years of experience that impact personnel classifications.
- 3.8 The classification level(s) noted in the CWA must match the levels and rates of the resources assigned. PG&E has the right to challenge the classification of assigned resources based on performance. The classification level(s) noted in the CWA shall apply for the duration of the CWA assignment.

- 3.9 Contractor shall bill the lesser of either: 1) the agreed upon rates set forth in Attachment 1 – Pricing Schedule or 2) the subcontractor’s rates plus the agreed upon mark-up set forth in Attachment 2 – Markups. Subcontractor personnel must match the same labor classifications and requirements established in this MSA, including but not limited to years of relevant experience, education, and certifications.
- 3.10 If contractor replaces an assigned team member during the course of the CWA term, PG&E shall not be responsible for any costs related to training the new assigned team member and any replacement personnel will be billable to PG&E at a rate not to exceed that agreed to upon CWA execution. PG&E shall be notified in advance and approve of any change in assigned resources.
- 3.11 CWA Execution: The Work shall be performed by Contractor only after the execution of a CWA by Contractor and PG&E, with a detailed Scope of Work and associated attachments and detailed project Cost Breakdown.
- 3.12 CWA Issuance: PG&E may issue a CWA to Contractor as a direct-award or through a competitive bidding process. PG&E shall not be liable for any costs incurred by Contractor in preparation of a proposal OR FOR OTHER “MARKETING” efforts put forth by Contractor.
- 3.13 CWA Term: Work performed under any CWA not completed within the effective term of this Contract shall continue to the conclusion of the term specified in the CWA and any modifications thereto. This Contract shall govern Contractor’s and PG&E’s rights and obligations with respect to the CWA to the same extent as if the CWA was completed during the term of this Contract.
- 3.14 CWA Modifications: PG&E and Contractor will address changes to a CWA by issuing a Change Order to the CWA. Unless expressly authorized in the modified CWA, all the terms of the original CWA and any previous CWA modifications shall remain in full force and effect.
- 3.15 In the event of any inconsistency between the Specific Conditions, General Conditions, or any Contract Change Order, Contract Work Authorization, Contract Document and/or Specification, the following order of precedence applies (in descending order): (a) Change Orders to a CWA, (b) a CWA, (c) Change Order to Specific Conditions, (d) Specific Conditions, (e) Change Order to General Conditions, and (f) General Conditions.
- 3.16 PG&E Labor Agreement: PG&E’s existing labor agreement with the Engineers and Scientists of California union has restrictions on the contracting of specific design and drafting services. Therefore, a CWA issued under this Contract may require Contractor to utilize PG&E’s designers and/or drafters for specific services to be performed under one or more tasks of the CWA, and Contractor shall do so in such a manner as to minimize costs to PG&E while continuing to deliver the caliber of service expected by current good and sound professional procedures and practices. PG&E and Contractor will cooperate to assure that such employees of PG&E are not deemed to be supervised or controlled by Contractor to any extent which would adversely implicate union organizing or collective bargaining representation.
- 3.17 If Contractor agrees to perform the Scope of Work of a CWA for which certain task(s) require the use of PG&E designers and/or drafters, Contractor’s professional engineer, registered in California, shall stamp all discipline’s design documents to the extent consistent with the California professional licensing laws.
- 3.18 Contractor shall timely provide all necessary reporting and documentation so as to remain in compliance with the requirements of the CPUC, DOT and all other applicable agencies.
- 3.19 Non-Disclosure Agreements: Contractor shall require all of its employees and subcontractors who will perform Work on behalf of PG&E to sign a Nondisclosure Agreement in the form attached to this Contract and subsequent CWAs. Prior to starting Work, Contractor shall promptly furnish the original signed Nondisclosure Agreement to PG&E.
- 3.20 Software: Contractor shall utilize software and file formats compatible with PG&E systems and requirements, including but not limited to software referenced under PG&E’s CAD Standards Manual.

3.21 Invoicing Guidelines:

- 3.21.1 Thirteen business days prior to month end, Contractor shall forecast, prepare and submit to PG&E an estimate itemizing any Work that will be completed through the end of each month as well as any un-billed work that has been completed.
- 3.21.2 Contractor shall submit monthly invoices to PG&E for compensation earned and reimbursable expenses incurred in the preceding calendar month. Invoices shall provide a sufficient level of detail for each line item so that the reviewer can ascertain the scope of work being performed and material/equipment being purchased. Items of expense shall be clearly described on each invoice.
- 3.21.3 Contractor's invoice shall include a staffing report of personnel whose time was directly billed for the performance of the Work. Such a staffing report shall provide sufficient detail to be able to determine each individual, task performed, location, billing rate, labor classification, hours billed, and reimbursable expenses and subcontracting spend.
- 3.21.4 For the purpose of visibility and accounting accuracy, Contractor shall breakout total hours by labor classifications and by project in a clearly defined breakdown table attached to the invoice and properly referenced. Comingling projects and labor is unacceptable and shall be rejected.
- 3.21.5 Reimbursable Expenses shall be billed at cost and clearly identified with copies of all receipts included with invoicing. Meal receipts must be itemized (alcoholic beverages are excluded). Reference Exhibit E herein.
- 3.21.6 Invoice Coversheet:
- 3.21.6.1 Contractor shall include a 1 page summary, which shall include, but not be limited to, the following items:
- Master Service Agreement (MSA) number
 - Contract Work Authorization (CWA) number
 - Invoice number
 - Invoice date
 - Time period invoiced work was performed
 - Expected project completion date
 - Total hours and costs
 - Total subcontractor labor hours and costs
 - Equipment quantities and costs
 - Material quantities and costs
 - Original contract amount
 - Total authorized contract amount
 - Amount billed to date, in terms of dollars and percentage
 - Remaining contract amount, in terms of dollars and percentage
 - Last invoice amount
 - Estimated invoice amount for next period
 - Total expected CWA value (not to exceed Contract maximum amount)
 - Progress (e.g. Percent Complete or Earned Value)
 - Milestones achieved to date
 - Notification of potential change orders
 - Short summary of work
- 3.21.7 Other Reporting

- 3.21.7.1 Contractor shall consolidate all timecard information for ALL projects authorized by CWAs into a MS Excel spreadsheet which shall be submitted monthly to PG&E's Contract Management personnel. The time cards and projects shall be clearly identified by CWA number, classifications, rates, hours, and include but not be limited to project name, project order number(s), and include other information as requested by PG&E's Contract Management group.
- 3.21.7.2 Contractor shall update a project schedule on a monthly basis (or more frequently if necessary) to indicate the actual percent complete of each task corresponding to the Work. The updated schedule shall be submitted along with the pay estimate.
- 3.21.8 Project Cost detail: On a monthly basis, Contractor provides PG&E's Engineering Support Services Group: information detailing the Order Number, project name, the category of the charge, transaction date, number of hours charged & dollars charged, and applicable engineering design and review process task identified in Exhibit A herein.
- 3.21.9 Contractor shall track their progress, which shall include variance and overall status reporting, along with any other mutually agreed upon Key Performance Indicators (KPIs). The status reporting shall be tracked for each project including but not limited to the following KPIs:
- Earned Value (Schedule, work complete, dollars spent, dollars spent vs. dollars planned)
 - Engineering milestone schedules met (30% design/60% design/90% design, IFC)
 - Number of Design Changes and root cause (PG&E vs. Contractor error)
 - Change orders (# of change orders, value of change orders, reasons for change orders)
 - Engineering deliverables schedule variance report
 - Applicable Burndown chart
- 3.21.10 Contractor shall notify PG&E Project Manager(s) in writing once the net invoice amount has reached seventy-five percent (75%) of the authorized contract amount.

4.0 Section Four – Scope of Work – Project Management

- 4.1 Contractor shall provide comprehensive Work for each Project described in a CWA and executed by both parties, which shall include, without limitation: developing updating all engineering design, construction and installation Work requirements, as well as, equipment and material procurement allowing necessary time for all PG&E required reviews to meet the Project schedule and deadlines.
- 4.2 After receipt of a fully executed CWA, the Contractor shall hold a Kickoff meeting to affirm communications and Project performance criteria. The kickoff meeting shall confirm PG&E's critical quality standards and project objectives and include the following discussions:
- 4.2.1 Establish the formal communication plan, meetings, conference calls and status reports;
 - 4.2.2 Exchange contact information;
 - 4.2.3 Review safety and security issues;
 - 4.2.4 Review roles and responsibilities, confirm staffing plan and staff availability for the CWA;
 - 4.2.5 Confirm and review the project Scope;
 - 4.2.6 Review Project schedule;
 - 4.2.7 Discuss required review meetings and deliverables;
 - 4.2.8 Review procurement process (if applicable);
 - 4.2.9 Confirm Deliverable Milestones;
 - 4.2.10 Confirm invoicing schedule;
 - 4.2.11 Review performance and acceptance test criteria; and
 - 4.2.12 Confirm Completion Date and Project Closure Criteria

- 4.3 For each Project, Contractor will assign a project manager and PG&E will assign a Lead Engineer who shall have overall responsibility for the project for their respective organization for Project execution and lead their respective organizations' teams. The project manager and lead engineer shall coordinate efforts for preparing logistics plans, schedules, engineering studies, rehabilitation studies and constructability reviews and will act as the primary interfaces between their firm and the project teams.
- 4.4 Contractor's project team shall work effectively with PG&E's project team to coordinate all activities, meetings and deliverables for both teams for a seamless integration for each Project.
- 4.5 Contractor shall manage, monitor and coordinate all of its assigned project and construction activities as applicable, including any Subcontractors and coordinate the assigned Project-related activities of PG&E.
- 4.6 At the start of the mobilization of onsite construction activities, Contractor shall as appropriate, provide onsite management and if necessary, field personnel to provide onsite technical assistance, installation supervision and commissioning support as required by the applicable CWA
- 4.7 To the extent required by the applicable CWA, Contractor shall provide continued onsite support during construction, installation, startup, and commissioning of the site and/or equipment. Contractor shall develop a complete understanding of PG&E's Project objectives, and communicate with PG&E to ensure that the Project objectives are achieved.
- 4.8 Contractor shall be responsible for coordinating the delivery of supplied equipment and materials, and coordinating the activities of Contractor's and PG&E's site personnel, vendors, and subcontractors at the jobsite. Contractor shall communicate with all project teams and jobsite personnel on a continuing basis to ensure that all site-specific objectives and Deliverable Milestones are met.
- 4.9 Contractor is responsible for developing a Project Schedule. All activities associated with a project shall be directed by the Project Schedule. The Project Schedule shall be constructed based on a mutual agreement between Contractor and PG&E. A preliminary Project Schedule shall be provided upon Contractor's delivery of a project quotation and/or proposal. All Project Schedules shall be constructed based on engineering Milestone Deliverables and shipping availability of all materials and equipment from factories and vendors.
- 4.9.1 Prior to commencement of the Work authorized by this agreement, Contractor shall prepare and maintain a Milestone Project Schedule using PG&E's P6 format provided by PG&E's Work Supervisor as identified in a duly executed CWA. PG&E and Contractor shall coordinate the milestone scheduling effort. Contractor shall assist PG&E with developing a detailed Construction Schedule if requested by PG&E. Such a schedule is required to be prepared using PG&E approved software application (e.g. Primavera Version 6.0, Microsoft Project, etc.) utilizing Critical Path Method (CPM) and graphed on a Gantt chart.
- 4.9.2 The milestone schedule (schedule) shall be used to record and report actual performance and progress, and to outline how Contractor plans to integrate engineering, procurement, and construction in order to ensure accurate and timely completion of all required Work performed by Contractor. Contractor's schedule must include sufficient time for PG&E's review of planning and engineering documents where approval is required. A sample Work Breakdown Structure is attached hereto and incorporated herein as Exhibit D.
- 4.9.3 Contractor shall implement a Performance Measurement Baseline (PMB) with distributed and undistributed budgets for the Work Breakdown Structure (WBS) in tandem with a schedule baseline, against which progress will be measured. Contractor shall submit the PMB for approval to PG&E within twenty-one (21) calendar days after the Preconstruction Conference.
- 4.9.4 The Control Account (CA) structure will be based upon milestones as defined in the Scope of Work and will correspond with the Contractor's Schedule of Values. In addition, the job cost structure should reflect the PO structure, allowing for proper accounting in the PG&E WBS

- 4.9.5 Contractor shall develop and deliver to PG&E weekly Work plans for construction covering the last week's progress and identifying the next three week's Work plan at a detailed level. Specific detail may be increased or reduced at the discretion of the Project Manager. The Work plan should contain specific activities, durations, materials, locations, and resources required for on-time completion of the scheduled activities.
- 4.9.6 Unless otherwise specified by PG&E's Work Supervisor as identified on a duly executed CWA, Contractor shall provide schedule updates to PG&E every week and a monthly update submitted with each invoice as a condition of payment. Contractor shall provide PG&E with estimated or actual invoices within ten (10) days of accrual (required accrual date to be specified at project kick-off).
- 4.9.7 Contractor's schedule updates shall include a detailed variance analysis narrative explaining significant changes in the schedule and their impact to the schedule, cost, and scope of the project since the last update. Items shall include, but are not limited to, duration changes, logic changes, new activities, milestone changes, change order requirements, and any other scheduling elements. The basis of all constraints and lags utilized in the PMB and subsequent schedule updates must be documented in the schedule narrative.
- 4.9.8 Contractor shall not utilize float suppression techniques or artificial restraints, constraints, lags or durations to lessen or control the amount of total or free float contained in the network. Open Ended activities that have either no predecessor or no successor relationships shall be avoided or documented in the schedule narrative.
- 4.9.9 Float shall not be considered as time for the exclusive use of or benefit of either PG&E or the Contractor. Float shall be considered as a resource available to both parties for the benefit of the project.
- 4.10 On a monthly basis Contractor shall submit a daily record of man-hours worked by each of its employees and its subcontractor employees in order to facilitate PG&E's accounting. The transcript shall fully describe the various classes of Work performed in conformance with the applicable classifications set forth in PG&E's item segregation, or the breakdown of the classifications as may be deemed advisable by PG&E. The transcript shall also indicate the time allotted to each classification of Work and the hourly or daily applicable rates of pay of the employees. (Completed and validated Labor, Material, and Equipment (LM&E) sheets per classification may serve as supporting documentation).
- 4.11 Contractor shall use PG&E Earned Value (EV) as defined in this section to report project progress and as a standard, objective metric. A hierarchical schedule (Work Breakdown Structure) and integrated cost plan shall be in place with changes to baseline tightly controlled; No change shall be made to the accepted Cost-Loaded Schedule Baseline without the prior written authorization of the PG&E Project Manager.
- 4.12 Contractor shall establish tangible, measurable deliverables (Work Packages) within the hierarchical schedule so that every WBS element has at least one Work Package and that there is at least one Work Package completing weekly.
- 4.13 Contractor shall assign a dollar amount to each Work Package representing the value of that Work Package to PG&E. Once PG&E approves the value assigned to each Work Package the values will be recorded in the Contractor's Schedule of Values. The value of each Work Package is earned only when the Work Package has been fully delivered (100% completed and objectively determined) or objectively measured using unit pricing or defined deliverables (e.g. linear feet). Arbitrary percent complete and percent of budget spent are not acceptable forms of progress reporting under PG&E Earned Value. A sample Earned Value Calculation is attached hereto and incorporated herein as Exhibit C.

Contractor shall use the following PG&E Earned Value calculations for reporting project progress:

- Cost Variance (CV) = Earned Value to date less Actual Costs to date [CV = EV – AC]

- Schedule Variance (SV) = Earned Value to date less Planned Value of scheduled Work [SV = EV – PV]
 - Estimate to Complete (ETC) = The expected cost needed to complete all the remaining Work for the project
 - Estimate at Completion (EAC) = Actual Costs to date plus ETC. The expected total cost of the project when the defined Scope of Work will be completed [EAC = AC + ETC]
 - Variance at Completion (VAC) = Original Budget Estimate for all Work planned less EAC [VAC = OBE – EAC]
 - Schedule Performance Index (SPI) = Earned Value to date divided by Planned Value of scheduled Work [SPI = EV / PV]
 - Cost Performance Index (CPI) = Earned Value to date divided by Actual Cost [CPI = EV / AC]
 - To Complete Performance Index (TCPI) = (Original Budget Estimate for all Work planned less Earned Value to date) divided by (Original Budget Estimate for all Work planned less Actual Cost to date) [TCPI = (OBE – EV) / (OBE – AC)]
- 4.14 Using portal access, web access, shared server, or email, Contractor shall report to PG&E all current job cost details, budget vs. actual, PG&E Earned Value calculations (as defined above), trended forecast of schedule and cost and other requirements as requested by PG&E.
- 4.15 Contractor shall provide PG&E with notification of the receipt of any goods and services received within ten (10) business days in order to ensure timely reporting of goods receipts and accruals to the appropriate departments.
- 4.16 On a monthly basis PG&E and Contractor will determine the amount of Work satisfactorily completed and which Work Packages, if any, have been fully delivered. The units of Work satisfactorily completed for the current period and the total project to date, as well as the Work Packages fully delivered will be recorded in the Schedule of Values and agreement. The amount of Work completed and work packages fully delivered will be signed by PG&E and the Contractor on the Schedule of Earned Values. Contractor shall, via portal access, web access, shared server, or email, send a copy of the week's Schedule of Earned Values to the PM and other designated representatives for recording the contract liability in PG&E's cost and financial records. In the event of a disagreement regarding Work Package completion for Earned Value reporting purposes, PG&E shall make the final determination.
- 4.17 Lessons Learned: For each Work Package, Contractor shall submit to the PG&E PM for PG&E's written approval a statement with supporting documentation of all lessons learned from Work Package, including but not limited to the following: (i) all savings on the cost realized with an analysis of how and why savings occurred; (ii) all unanticipated costs incurred with suggested means to better anticipate those costs in the future; (iii) an analysis of all safety and environmental incidents, including near misses, with a plan for avoiding those incidents in future projects; (iv) if there were no safety or environmental incidents or near misses during construction, an explanation of what worked well from the safety perspective; (v) an analysis of the labor and equipment productivity levels achieved on the Work Package, including an explanation personnel compositions and equipment utilization, with suggestions on how these productivity levels could be improved on future projects; (vi) an analysis of all Schedule adjustments made during design and suggestions on how to avoid the need for Schedule adjustments on future projects; (vii) any measures taken to improve relations with permitting agencies, neighbors, and PG&E customers; (viii) an analysis of any quality issues, how they were resolved, and how to avoid those issues in the future; and (ix) any other process improvement items.
- 4.18 Project Schedule Reports shall be submitted to PG&E on a monthly basis and should include the following materials and formats:

- An electronic file native to scheduling tool (not graphical or flattened output such as PDF) which is 100% compatible with existing PG&E tool;
 - Scheduling tool reports shall be 8 ½" by 11" Minimum but 11"x17" is preferred;
 - Time Scaled Logic Diagram or Bar Chart based on early dates and organized by WBS Structure with the longest (critical) path printed in red;
 - Estimated Cash Flow Histogram with planned cash flow value per period (bar) and cumulative cash flow to date (curve);
 - Earned Value curve charts showing planned value, earned value, and actual costs over time;
 - Change order log;
 - Status of purchase orders, and line item if multiple line items exist;
 - Invoice and payment status updates;
 - Status of governmental approvals and permits;
 - A summary of the status of WMDVBE participation;
 - A review of the Project Schedule, including any revisions proposed, and a review of the progress of the Work in relation to the Project Schedule;
 - A statement of the outlook for meeting future Project Schedule dates and the reasons for any change in outlook from the previous report, with particular emphasis on issues which could affect the Project completion date;
 - A review of the Calendar Year and Project Budget and detailed cost and cash forecast and any applications for payment, along with a comparison of actual to budgeted expenditures on a line item basis and analysis of any expenditures exceeding budgeted amounts and analysis of variances greater than \$250K within the calendar year budget;
 - A detailed description of any proposed charges to the contingency, if any, contained in the Project Budget;
 - An explanation of any corrective action taken or proposed;
 - A complete review of the status of any Change Orders or other modifications to the construction contract;
 - A summary of any claims made or anticipated to be made by the Contractor, project manager, or engineer;
 - Photographs illustrating the progress of or issues relating to the project;
 - A copy of Contractor's monthly status report; and
 - Such additional information as PG&E may reasonably request.
- 4.19 Contractor shall use its best efforts as commercially acceptable in the industry to provide prompt attention and diligence to all safety and security issues associated with a project. The Contractor shall identify all issues with potential schedule impact as soon as practicable, and communicate issues to PG&E for prompt resolution.
- 4.20 Contractor shall provide PG&E with monthly reports detailing the project(s) progress, including updated schedule, progress of all activities and deliverables, budget, cash flow, safety, reliability, supplier diversity, action items, open items, and potential change orders, any issues and the strategies and resolutions thereof.
- 4.21 Prepare and submit to PG&E for its review and approval, as necessary, any necessary revisions and updates of the Project Schedule and Project Budget within two (2) days of events necessitating such revision or update; no such revisions or updates shall be effective unless and until approved by PG&E in its sole discretion or as otherwise provided for in this Contract.

5.0 Section Five – Scope of Work – Engineering Services

5.1 The following provisions shall apply to the extent applicable and when Engineering Services are included in a CWA:

5.1.1 Studies: Contractor shall be responsible to complete studies before the major engineering development begins. All Studies and associated deliverables provided by the Contractor shall be subject to review and acceptance by PG&E's Work Supervisor. Unless otherwise specified, Contractor shall submit preliminary Study deliverables to PG&E's Work Supervisor for review, comment and written approval, in advance of the Contractor's issuance of the final Study Deliverable(s).

5.1.2 Civil Design: Civil Designs shall include but are limited to, geotechnical reports, topographical surveys, structural designs, structural load calculations, foundation designs, assembly drawings, anchorage requirements, environmental conditions and seismic conditions. The Contractor shall be responsible for the planning and designing of structures and the altering of the geography to suit PG&E's requirements.

5.1.2.1 Civil Design Review Process: All Civil Designs and associated deliverables provided by the Contractor shall be subject to review and acceptance by PG&E's Work Supervisor. Unless otherwise specified in writing by PG&E's Lead Project Engineer, the Contractor shall submit preliminary Civil Design deliverables to PG&E's Lead Project Engineer for review, comment and written approval, in advance of the Contractor's issuance of the final Civil Design Deliverable(s).

5.1.3 Engineering and Design: The Contractor shall be responsible to provide engineering services, including but not limited to all preliminary and final project designs and drawings as requested by PG&E to prepare the Projects design. The Contractor's responsibilities shall include the preparation of plans and calculations, which set forth in detail, the requirements and elements of the Project. The design elements shall include, but are not limited to, electrical diagrams, drawings, layout drawings, calculations, studies, analysis, equipment requirements, equipment Specifications, materials listings, protection requirements, automation requirements, connection diagrams, cable and conduit schedules, telecommunication requirements, modifications to existing control equipment and systems, system control and monitoring requirements.

5.1.3.1 Engineering and Design Review Process: Reviews shall be scheduled to follow the PG&E Design Review Process and shall be provided by PG&E under separate cover. All extenuating conditions that may cause design changes to the standards shall be clearly and promptly communicated with the PG&E Lead Project Engineer for further discussion and approval. Recommendations may be made during the design review process to offer improvement in performance or cost against PG&E standards. The Contractor is responsible to provide robust internal review processes with scope reviews, internal kickoff meetings and Project overview meetings for the Contractor's project team, cross discipline peer reviews and QA/QC reviews. Contractor shall be responsible to monitor internal reviews and QA processes. Contractor shall coordinate with PG&E to gain approval at the 30% design completion, 60% design completion (Issued for Permit), 90% design completion (Issued for Bid), and 100% design completion (Issued for Construction) phases, unless more appropriate milestones have been mutually agreed upon. Such 30%, 60%, 90% and 100% engineering complete milestones are subject to Scope of Work – Acceptance Criteria of this document. The Design Review Process shall follow PG&E's Project

Delivery System (PDS) process. All deliverables shall meet all requirements of that process as spelled out specifically in a duly executed CWA. See Exhibit A for detailed Engineering and Design Review Process.

- 5.1.4 Site Development: Contractor shall provide design for site grading, paving, roads, drainage, and spill retention facilities for the Project(s) per PG&E's engineering and design requirements.
- 5.1.5 Yard Surface: Contractor shall be responsible for the yard surface design based on the grounding study.
- 5.1.6 Access Road: Where access roads are specified to be provided in, they shall be designed in accordance with PG&E's engineering and design requirements and shall also include a gate to obtain access to the worksite.
- 5.1.7 Site Layout: The worksite yard layout shall show the locations of all structures and foundations, fences and gates, roads, and any additional spaces required during the worksite construction phase.
- 5.1.8 Spill Prevention Control and Countermeasure (SPCC) features shall conform to PG&E requirements. Facility improvements shall use concrete or shotcrete for features including curbs, dikes, berms, retaining walls, sumps, basins and weirs.
- 5.1.9 Geotechnical Investigation: Contractor shall evaluate site subsurface conditions to prepare geotechnical and grading design criteria for use in foundation design. The Contractor shall conduct Work required to provide adequate subsurface information for geotechnical aspects of Project design and construction and present the information in a geotechnical report. Copies of all geotechnical reports (stamped and sealed by a California registered P.E.) shall be furnished to PG&E Substation Civil Engineering and PG&E Geotechnical Department. Reports shall be submitted in electronic PDF Format with boring log in gINT format. GPS locations (Latitude and Longitude) shall be given for all borings. Geotechnical Information and Reports developed for soils within PG&E property may be copied and distributed by PG&E for information purposes necessary PG&E's sole discretion.
- 5.1.10 Seismic Requirements: The equipment, accessories, supports and foundations for yard equipment and structures shall be designed such that there will be no damage nor loss of function and the equipment will remain operational during and following the seismic event. The term "operational" implies that rotating equipment will not freeze, pressure vessels will not rupture, supports will not collapse, systems required to be leak tight will remain leak tight, and components required to respond actively (such as control linkages, switch contacts, relays, motors, pumps, etc.) will respond actively. In addition, equipment shall not be caused to change operative state due to the seismic event (for example, a circuit breaker in an open position shall remain open; if closed, it must remain closed). Requirements for the design of support structures, foundations and anchorages are specified under the direction of PG&E.
- 5.1.11 New equipment may be installed on existing structures if the following conditions are satisfied; PG&E approves such use; and Existing structure is capable of resisting statically applied or sustained loads in accordance with PG&E's engineering and design requirements.
- 5.1.12 Structural elements whose function is to attach and transfer seismic loads required by this Contract will conform to PG&E's engineering and design requirements.
- 5.1.13 Structures and components not requiring seismic qualifications shall be designed in accordance with PG&E's engineering and design requirements. Seismic design of foundations and anchorages shall be in accordance with PG&E's engineering and design requirements.
- 5.1.14 PG&E's review of the analysis or test shall not relieve Contractor of the responsibility for providing equipment and supporting structures that can withstand the required seismic loads.

- 5.1.15 Contractor shall submit engineering calculations used for the design of structures, foundations and anchorages to PG&E for Acceptance. Documentation shall be stamped by a California registered Civil or Structural Engineer.
- 5.1.16 Contractor shall provide a seismic letter of compliance certifying conformance with the seismic requirements in this Contract. The letter shall be signed by an authorized representative of the manufacturer and a registered professional engineer.
- 5.1.17 Design – Drafting Requirements: All drawings for construction shall be prepared on PG&E drawing format using PG&E drafting practices. Drawing sizes and title blocks shall be in accordance with PG&E drawing standards, except that the "Approved" block shall be retitled to read "Accepted." Contractor shall be identified by name in some manner adjacent to the standard title block.
- 5.2 The Contractor shall request from PG&E a block of drawing numbers after the quantity and sizes of required drawings has been determined. Contractor shall then submit a drawing list to PG&E for retrieving electronic drawings to be used for the project.
- 5.3 All new drawings shall be computer generated and shall be compatible with the MicroStation system of computer-aided design (CAD) or other CAD system approved by PG&E. The Contractor shall submit, in digital form, all construction and installation drawings.
- 5.4 Non-drawing and drawing documents such as bill of materials, circuit schedules, conduit schedules, drawings, etc. shall be compatible with Microsoft software (EXCEL, WORD, ACCESS, etc.). PG&E will furnish templates for such documents, and if furnished, Contractor shall utilize PG&E's templates.
- 5.5 Bill of Material shall be prepared according to PG&E's Standards. Coded materials (with six digit PG&E "M" codes) shall be used in all designs. If non-coded material is used (use only when coded material is not available) detailed information such as comprehensive material description, ratings, physical dimensions, weight, materials used, manufacturer catalog number, applicable industry standards, etc. shall be specified.
- 5.6 Bill of Materials shall show the breakdown by tasks and use the BOM format in Excel provided by PG&E's Sourcing Materials Group.
- 5.7 Contractor shall prepare and issue all drawing using PG&E approved transmittals. And Contractor shall follow PG&E Design Guidelines in preparing transmittals.
- 5.8 Ambient Conditions: The Contractor shall ensure the dry bulb temperature ranges are between acceptable temperatures and provide PG&E's Work Supervisor with a written confirmation of the ambient conditions. The Contractor shall ensure that all equipment is suitable for the ambient conditions of the worksite.
- 5.9 Elevation: Contractor shall determine the elevation of the worksite and provide PG&E's Work Supervisor with a written confirmation of the worksite Elevation. Horizontal and vertical datum shall be in accordance with PG&E's GPS requirements.
- 5.10 All hazardous materials necessary to perform any site Work hereunder including, but not limited to, rust preventives required in these Specific Conditions, as applicable, shall be provided by Contractor and handled in accordance with all applicable Federal, State, and local laws, codes, regulations, and ordinances.
- 5.11 Prior to commencing any site Work hereunder, Contractor shall advise PG&E in writing of all hazardous materials which will be brought onto the PG&E worksite and shall provide all applicable MSDS for such materials. All containers of hazardous materials shall be labeled by Material Supplier in accordance with applicable regulations including, but not limited to, Cal/OSHA Hazard Communication Standard, prior to any container being placed on the PG&E worksite.

6.0 Section Six – Material Supplier Quality Assurance (SQA)

- 6.1 To assure safety, reliability, and affordability of procured material, PG&E has established policies for material quality that require Contractor compliance. These procedures are fully defined in PG&E policies with a summary provided below. Non-compliance of PG&E policies and/or problematic quality may lead to Contractor probation with additional Contractor cost related to oversight performed by PG&E Supplier Quality and/or contracted third parties, and/or business diverted to an alternate supplier. The following section highlights the material quality requirements for direct material suppliers to PG&E for products and custom tools used in power generation (excluding nuclear) and the transmission and distribution of natural gas and electricity. Details for these requirements are listed in the following procedures: TD-2950P-01, and TD-4001P-04.
- 6.2 Quality System Requirements: The Contractor should have a third-party certification to ISO 9001 or a quality management system that complies with ISO 9001 requirements. In cases where the Contractor does not meet this requirement, PG&E will document deficiencies of the QMS per ISO guidelines as part of the audit process. The Contractor shall submit a corrective action plan to PG&E for approval which addresses all documented deficiencies. New Contractors to PG&E shall be audited and conditionally approved by PG&E before being allowed to begin product or process qualification activities. Approval requires the Contractor to take corrective action on all audit nonconformance's to PG&E's satisfaction, or to have an approved corrective action plan in place to develop QMS deficiencies to PG&E's satisfaction.
- 6.3 Record Retention: Records required by applicable industry product standards shall be retained for not less than the period of time specified by any applicable industry standards or five years, whichever is longer. Records required to provide evidence of conformity to requirements and of the effective operation of the quality management system shall be retained for a minimum of five years. These records must support material traceability to include material code, description, manufacturer, ship date to PG&E and serial number. This data shall be maintained in an on-line spread sheet for the duration of the contract and shall be available for verification and download by PG&E. PG&E must be notified prior to the disposal of any quality records.
- 6.4 Right of Access: PG&E reserves the right to visit Contractors and sub-Contractors for audits or business meetings during the normal course of business or to perform source inspection and surveillance. PG&E will use reasonable efforts to provide at least five (5) days advance notice and work with the Contractors to ensure adequate preparation for audit and business visits. Contractors will provide advance notice to PG&E for planned surveillance or source inspection activities consistent with manufacturing schedules or as required for "key hold points" or "witness points".
- 6.5 Change Management Process: This process implements a formal PG&E policy requiring approval for all Contractor changes. It requires a formal system for assessing, tracking & documenting changes; improves PG&E ability to be aware, prepare and support the change; and ensures pre-approval to avoid the adverse effect of random changes. The Contractor is required to implement a Configuration Management System to ensure the control of documentation and the "definition" of product manufactured and / or designed for PG&E by the Contractor or its sub-Contractors.
- 6.6 Material Traceability: Contractor shall be required to maintain traceability data on oil filled or solid state or vacuum operated products. The traceability data to include material code, description, manufacturer, ship date to PG&E and serial number. This data shall be maintained in an on-line spread sheet for the duration of the contract and shall be available for verification and download by PG&E.

- 6.7 Control of Sub-tier Suppliers: If a supplier chooses to outsource a process or product, the Contractor is responsible for qualification and surveillance of the sub-Contractor to PG&E requirements and notifying PG&E of this qualification. PG&E reserves the right to review the Contractor's process for selection, qualification and surveillance of its sub-Contractors; to approve or disapprove the sub-Contractor's qualification; and audit and monitor the sub-Contractor's processes and facilities when deemed necessary. The Contractor shall perform routine quality audits and inspection of its key sub-Contractors to ensure oversight, knowledge and control of critical or special processes as well as changes enacted by the sub-Contractor. In addition, the Contractor shall have a documented system in place to inspect custom incoming components from sub-Contractors for adherence to drawings or specifications. The Contractor shall conduct requalification to validate any major changes to processes or product provided by the sub-Contractors, including First Article inspections. Key sub-Contractors, sub-Contractor processes, or sub-Contractor manufacturing locations or critical components that affect form, fit, or function that are approved as part of the PG&E qualification are considered "frozen" and cannot be changed without resubmittal and approval of the required documents by PG&E.
- 6.8 First Article: Contractor shall inform and monitor sub-tier suppliers to ensure that any major changes to their products or facilities are communicated to PG&E Supplier Quality and Purchasing personnel with at least 30 days of notice prior to the commencement of that change. PG&E shall be notified at minimum through firstarticle@pge.com and shall include the contact information for the individual at the distributor most knowledgeable about the change. PG&E personnel will respond with follow-up questions and/or directions on any further testing/measurements/certs that may be required to "re-qualify" the product or facility changes. This note does not apply to custom or "one-off" products. The changes covered by this note include:
- 6.8.1 Major revision to a product produced for PG&E
 - 6.8.2 Change of location of manufacturing or major change of facility
 - 6.8.3 Change of sub-tier supplier to a supplier for a major component of a product
 - 6.8.4 Break of production (that will begin production of that product) for at least 2 years PG&E shall be notified at minimum through firstarticle@pge.com and shall include the contact information for the individual at the distributor most knowledgeable about the change. PG&E personnel will respond with follow-up questions and/or directions on any further testing/measurements/certs that may be required to "re-qualify" the product or facility changes. This note does not apply to custom or "one-off" products.
- 6.9 Quality Representation: Contractor shall maintain at least one quality professional on staff to support duties and tasks as noted in the terms and conditions of this RFP. Contractor shall maintain a staff of trained quality inspectors (as required) to ensure consistent and accurate quality inspection of products as required in this RFP.
- 6.10 Hold Points and Witness Points: Hold Points are mandatory verification points identified by the PG&E Supplier Quality Engineer (SQE) beyond which work may not proceed until a PG&E representative performs verification or surveillance and provides notice to proceed. Source inspection prior to product release and PG&E surveillance of a manufacturing step, special process test or inspection are examples of Hold Points. Hold points or witness points, when required, will normally be communicated through purchase order notes. Witness Points require the Contractor to notify the SQE in writing prior to completion of those steps. After notification, work may not proceed beyond a Witness Point without action by the SQE. The Contractor shall notify the SQE of Hold Points or Witness Points in the manufacturing or qualification process schedule a minimum of ten (10) days in advance (unless otherwise agreed upon with the SQE).

- 6.11 Contractor Inspection of Parts: Contractor shall establish a formal inspection process to ensure all required items are appropriately inspected to meet PG&E's quality requirements. Note: Contractor shall be provided an inspection plan by PG&E for each item subject to inspection. Contractor shall generally inform PG&E Supplier Quality with 15 business days of notice prior to the need for the unique inspection plans. Inspection plans are subject to change by PG&E and shall be modified by Contractor to reflect those changes driven by PG&E immediately upon receipt. PG&E may on occasion specifically add or subtract material codes from inspection based on quality concerns or levels of successful inspection. Contractor shall maintain records of inspection and provide the data in a usable format with a minimum of the material code, part description, Contractor name, pass / fail status, quantity and reason for failure if applicable and related rejection report number.
- 6.12 Contractor Re-inspection of Rejected Lots at PG&E: Contractor shall be available to re-inspect 100% of parts rejected by PG&E during the course of inspection at PG&E facilities. This effort shall normally affect large or critical lots and would be conducted when lots are rejected by PG&E based upon a sampling plan rejection. The support would normally be expected to be on site at PG&E at the required location. The re-inspection shall generally be accomplished in not more than 4 business days from notification of the need for 100% inspection. Results of the inspection to be provided to PG&E Supplier Quality immediately upon completion.
- 6.13 Reporting Failures: Upon being informed of any product quality or usability problem(s) (including but not limited to recurrent product failures, supplier bulletins, and warranty return issues) that may affect products that have been and/or are being sold to PG&E, the Contractor of that product shall inform PG&E of the particular product quality or usability problem(s) within five (5) business days of the discovery by emailing the related SQA Manager or Director. The Contractor shall additionally exercise reasonable efforts, in a timely manner, to work with PG&E to ensure all suspect Goods are removed from PG&E's system and shall do so at no material or labor cost to PG&E.
- 6.14 Customer Service and Technical Support: Contractor will provide key contacts representing quality at their plant(s) and if applicable their corporate headquarters. Technical support from the plants will be available to PG&E if needed up to 7 days per week 24 hours a day. During problematic quality or product qualifications, the Contractor's quality organization will lead routine meetings, issue minutes, and maintain plans for qualification and corrective actions.
- 6.15 Preventive Maintenance: The Contractor shall identify key process equipment and tooling, develop and document a Preventive Maintenance program. PG&E may verify that such programs are documented and effectively implemented during Contractor audits.
- 6.16 Metrics: A "4-Panel" dashboard report format or an equivalent alternative will be provided upon request to demonstrate the Contractor's continuous improvement trend over time to reduce material defects. This report will contain trending of total inspection rejects over time, Pareto trending observed condition leading to the rejects, details of number of parts rejected as a function of time and part type, to include Corrective Action Plans and Status. In the case of problematic quality, updates are required bi-weekly and timely achievement of Scorecard requirements will prevent reductions in product allocations.
- 6.17 Sub-Tier Supplier Metrics: Supplier shall maintain metrics results from their inspections of each unique supplier for each lot inspected and shall take corrective action as supplier's metrics vary from acceptable levels as agreed upon with PG&E Quality. Contractor shall routinely notify PG&E quality related to suppliers that are struggling with maintaining the agreed upon metrics targets and shall inform PG&E upon request the steps taken to work with that supplier.

- 6.18 Contractor Response to SCARs (Supplier Corrective Action Response): Contractor shall generally be expected to achieve "containment" of any noted defects within 3 business days of finding those defects or of being notified of those defects by PG&E. Contractor shall generally be expected to provide a corrective action plan to PG&E or plan of corrective action within 10 business days of finding or of being notified of those defects by PG&E.

7.0 Section Seven – Deliverables Acceptance Criteria

- 7.1 Contractor shall prepare all Design Review Deliverables in accordance with 30%, 60%, and 90% design completion guidelines, which will be provided by PG&E on separate cover, referenced in Design Review PM Checklists, Attachment 5, listed on page 40.
- 7.2 Contractor shall notify and provide documentation and reporting of all discussions with CPUC or their representatives (SED oversight) concerning PG&E projects.
- 7.3 Contractor shall submit to PG&E its quality (QA/QC), compliance, and safety policies and procedures, and the results of Contractor's internal safety and compliance assessment when available for PG&E's review and approval. Contractor shall comply and cooperate with PG&E's third party quality and safety auditing service.
- 7.4 PG&E will indicate its acceptance of each Deliverable in writing and forward such written acceptance to Contractor. Once the Deliverable is presented for acceptance to PG&E, PG&E shall have fifteen (15) business days therefrom to either (i) accept the Deliverable in writing or (ii) reject the Deliverable by notifying Contractor in writing of PG&E's reasons why the Deliverable is not acceptable.
- 7.5 In the event PG&E rejects a Deliverable, Contractor shall address PG&E's reasons for such rejection and resubmit the Deliverable to PG&E for acceptance at no additional charge. Notwithstanding the foregoing, a Deliverable shall be deemed accepted upon the occurrence of PG&E failing to accept or reject the Deliverable within fifteen (15) business days of receipt.
- 7.5.1 If, after resubmission of the Deliverable by Contractor, PG&E still, by written notice to Contractor, rejects the Deliverable, PG&E may terminate the project effective upon notice to Contractor. Upon termination as set forth in this section and subject to payment by PG&E of all hourly fees for services received and accepted, PG&E shall have no further obligation to Contractor pursuant to the applicable CWA.
- 7.6 Contractor shall submit a recovery plan no later than one week from the date that the Contractor or the PG&E Project Manager determine the project completion date is forecast after PG&E's required date and shall implement the approved recovery plan upon written approval from PG&E's Project Manager.
- 7.6.1 If schedule slippage is the result of Contractor's actions, or in-actions, additional costs associated with the recovery plan including, but not limited to, additional manpower, resources, work hours, and Contractor premium time shall be paid by Contractor until such time as the Contractor brings project back on schedule and the project tracks to the original completion date.
- 7.7 Notwithstanding anything to the contrary in the Contract, if the Work performed by Contractor is in error at no fault of PG&E or does not meet the warranties set forth in this Contract and/or applicable CWA, in addition to any other equitable or legal remedies that PG&E may have, Contractor shall re-perform the Work at no additional cost or expense to PG&E.

8.0 Exhibit A – Engineering & Design Process Review

8.1 Transmission Engineering & Design Review Process

	Work Tasks	Deliverables
Scope Development	<ul style="list-style-type: none"> Site Reconnaissance <ul style="list-style-type: none"> Contractor personnel shall conduct one or more site visits or meetings as required to assess PG&E gas assets at the site(s). Prepare site documentation including, but not limited to, field notes, site photos, inspection reports, condition assessments. Record Research <ul style="list-style-type: none"> Obtain existing pertinent records and information that may include, but are not limited to, the following: <ul style="list-style-type: none"> As-Built (Record) Drawings Manufacturer equipment drawings Product literature Station operation and maintenance instructions (O&MI) Pipeline features list (PFL) Station features list (SFL) Operating diagrams Operating maps Geographic information system (GIS) maps Google Earth maps Gas view maps Obtain documents pertaining to similar projects at site or projects that may affect Work. Obtain all pertinent PG&E standards and procedures from PG&E's Technical Information Library. Support PG&E grounding study. Request topographical and utility surveys from PG&E. Request geotechnical investigation and report from PG&E. 	<ul style="list-style-type: none"> Site Documentation Records and Information Supporting information for PSD and PEP Initial Draft DBM Initial draft drawing list Initial draft list of technical specifications
30 Percent Design	<ul style="list-style-type: none"> Initial Design Basis <ul style="list-style-type: none"> Develop initial draft Design Basis Memorandum (DBM) conforming to PDS using the template that PG&E will make available online on the PDS sharepoint, or can be provided by PG&E upon request. The DBM will be updated at each design milestone (Tasks 3 through Task 6). Coordinate with stakeholders in real time as described in Task 1 to define the project given available information. Document background and Project objectives in initial draft of DBM. Complete initial draft of Project scope, focused on the key infrastructure elements included in the design (i.e., what is being designed). The intent of preparing the initial draft of Project scope is not to duplicate this SOW rather, as the design progresses, this section will be updated at each milestone with refined information on the infrastructure elements and design approaches used. Provide descriptions of alternatives for the Project, including but not limited to: Do nothing (no project) alternative; least-cost alternative to correct the problem and meet the objective; and alternatives that go beyond the least-cost alternative. For each alternative, describe the basic scope, cost, schedule, advantages, disadvantages, and key issues and risks associated with each alternative. This is a high-level alternative evaluation for relative comparison of the alternatives. It should not be developed with a high level of precision. Complete the remaining sections to the extent information is available. As 	<ul style="list-style-type: none"> Updated draft DBM Documentation of engineering calculations Updated drawing list Updated list of technical specifications Preliminary Bill of Materials (BOM) 30% drawings Preliminary draft technical specifications Recorded design comments in PG&E standard deliverable review template as starting point for 60% design development

	<p>the design progresses, these sections will be updated at each milestone with additional information.</p> <ul style="list-style-type: none"> ○ Review existing information related to the project, including but not limited to information available from PG&E (e.g., preliminary draft of any existing DBM or Project scope definition documentation, existing facility drawings, maps, etc.). ○ Prepare a detailed drawing list using PG&E's standard template. This drawing list must be approved by PG&E. The drawing list shall be prepared, reviewed, and approved at each design milestone, and indicate which drawings will be included in each design milestone submittal. ○ Prepare a list of technical specifications as necessary to supplement PG&E standards. This specification list must be approved by PG&E. The specification list shall be prepared, reviewed, and approved at each design milestone, and indicate which specifications will be included in each design milestone. ○ Prepare concept-level process and instrumentation diagrams (P&IDs) as exhibits to the DBM. ○ Prepare conceptual site plan(s) that provide sufficient level of detail to establish the Project footprint and describe phases of the Project Work as exhibits to the DBM. ○ If pertinent, prepare piping plan(s) that illustrate the extent and phasing (clearances) associated with demolition and replacement of equipment, valves, piping, and appurtenances as exhibits to the DBM. <ul style="list-style-type: none"> ● Prepare a pothole plan to verify desired valve extension lengths and locations and depth of existing utilities. ● Prepare a preliminary Bill of Materials (BOM) that identifies major equipment and long lead items. ● Prepare the draft drawings identified for the 30% Design submittal per the approved drawing list from the DBM. The drawing package may include, but are not limited to, the following: <ul style="list-style-type: none"> ○ Horizontal alignment of pipelines including tap locations and tie-in points ○ Preliminary P&ID ○ Workspace map(s) ○ Preliminary laydown area locations ○ Preliminary locations of excavation sites to facilitate hydrostatic testing ○ Preliminary locations of excavation sites to remove "unpiggable" pipeline features ○ Pothole plan ○ Station and valve lot valve and piping layout plans ○ Preliminary launcher and receiver plans ○ Mainline valve, meter, and vault plans ○ Area plot plan ○ Site improvement plan ○ Initiate Electrical Hazardous Area Classification layout ○ Initiate electrical grounding, electrical schematic, and electrical details ○ Preliminary site demolition and removal plan ○ Pipeline retirement plan ○ Draft tap list ○ Update drawing list ● Prepare a process hazard analysis (PHA). ● Prepare the preliminary draft specifications identified for the 30% Design submittal per the approved specification list from the DBM. ● Prepare preliminary calculations for inclusion in DBM. ● Update DBM including exhibits. ● Participate in 30% Design review. ● Participate in site walk (if requested by PG&E). ● Record design comments in PG&E standard deliverable review template as 	
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	starting point for 60% Design development.	
60 Percent Design	<ul style="list-style-type: none"> • Incorporate 30% design comments and update 30% Design deliverables. • Prepare the draft drawings identified for the 60% Design submittal per the approved drawing list from the 30% Design milestone. The drawing package may include, but is not limited to, the following: <ul style="list-style-type: none"> ○ Plan and profile drawings showing final route and draft profile incorporating potholing information ○ Final locations of laydown areas ○ Final locations, sections, and details of each excavation site ○ Station and valve lot valve and piping sections and details incorporating potholing information ○ Launcher and receiver sections and details ○ Test head sections and details ○ Mainline valve, meter, and vault sections and details ○ Pipe support details ○ Structural piers and foundations details ○ Electrical single-line diagrams ○ Connection diagrams ○ Conduit layouts ○ Electrical grounding, schematics, and details ○ Electrical hazardous area classification layout ○ Site demolition and removal plan and details ○ Pipeline retirement plan and details ○ Update BOM in a format suitable for use by PG&E sourcing and design drafting ○ Revise BOM for mechanical and foundation items ○ Equipment summary sheet ○ Equipment and line list ○ Draft welding procedures ○ Final tap list ○ Updated drawing list • Prepare the preliminary draft specifications identified for the 60% Design submittal per the approved specification list from the 30% Design submittal. • Update DBM including exhibits. • Participate in 60% Design review. • Participate in site walk (if requested by PG&E). • Record design comments in PG&E standard deliverable review template as starting point for 90% Design development. 	<ul style="list-style-type: none"> • Updated draft DBM • Updated documentation of engineering calculations • Updated drawing list • Updated list of technical specifications • Updated Bill of Materials (BOM) • 60% drawings • Updated draft technical specifications • Recorded design comments in PG&E standard deliverable review template as starting point for 90% design development
90 Percent Design	<ul style="list-style-type: none"> • Prepare the draft drawings identified for the 90% Design submittal per the approved drawing list from the 60% Design milestone. The drawing package may include, but is not limited to, the following: <ul style="list-style-type: none"> ○ Final electrical grounding , electrical schematic, electrical details ○ Final electrical single-line diagrams, connection diagrams, conduit layouts ○ Final pipe support details ○ Finalize structural piers and foundations ○ Finalize piping sections and details ○ Finalize site improvement plan ○ Fence plan and details ○ Finalize electrical hazardous area classification layout ○ Final welding procedures table ○ Final strength test pressure report(s) (STPR) ○ Final drawing list • Prepare the preliminary draft specifications identified for the 90% Design submittal per the approved specification list from the 60% Design submittal. • Update DBM including exhibits. • Participate in 90% Design review. 	<ul style="list-style-type: none"> • Updated DBM • Updated documentation of engineering calculations • Updated drawing list • Updated list of technical specifications • Updated Bill of Materials (BOM) • 90% drawings • Updated draft technical specifications • Recorded design comments in PG&E standard deliverable review template as starting point for IFC design development

	<ul style="list-style-type: none"> Record design comments in PG&E standard deliverable review template as starting point for development of the Issue for Construction (IFC) submittal. 	
Issue for Construction Drawing and Specifications	<ul style="list-style-type: none"> Prepare final DBM. Incorporate final markups for submittal. Consult for design changes and clarifications. Finalize drawing list. Prepare line and equipment list. Complete technical specifications. Submit IFC drawings Submit cancel checkout list. 	<ul style="list-style-type: none"> Final DBM Final documentation of engineering calculations Final drawing list Final list of technical specifications Final Bill of Materials (BOM) IFC drawings Final technical specifications Final welding procedures table Final strength test pressure report(s) (STPR) Final and approved Test Procedures PSSRs Marked up Operating Maps and Diagrams
Estimating	<ul style="list-style-type: none"> Activities in this task represent only work beyond the standard design-related support allowing the PG&E Project team to develop and update construction cost estimates. Support PG&E Project team in providing cost information required to determine Project feasibility and to secure funding. Exclude PG&E engineering, management, and administrative costs in estimates. Escalate construction costs to mid-point of construction using cost indices as directed by PG&E. Support preparation of the construction cost estimate by Class as defined by American Association of Cost Engineers (AACE) at the following design milestones: <ul style="list-style-type: none"> Design Basis: Class 5 estimate (+100% to -50%) 30 Percent Design: Class 4 estimate (+50% to -30%) 60 Percent Design: Class 3 estimate (+30% to -20%) 90 Percent Design: Class 2 estimate (+20% to -15%) IFC: Class 1 estimate (+15% to -10%) 	<ul style="list-style-type: none"> Estimate and basis of estimate documented for each requested estimate
Field Engineering	<ul style="list-style-type: none"> Design Support <ul style="list-style-type: none"> Consult for requested design changes and clarifications. Draft a response for each Request for Information (RFI). Prepare and submit each necessary Design Change Notification (DCN). Field Support <ul style="list-style-type: none"> Conduct observation visits to construction site(s). Prepare and submit notes, sketches, and pertinent information pertaining to each site visit. 	<ul style="list-style-type: none"> Responses to RFIs Responses to requested design changes and clarifications Responses to submittals Field notes and photos for all site visits in electronic format
Mapping / As-Built	<ul style="list-style-type: none"> Request drawing checkout from PG&E's system of record. Review redline drawings and incorporate as appropriate onto IFC drawings to create as-built drawings within 30 working days of receiving redline markups from the field. Review and sign off on updated drawings. <ul style="list-style-type: none"> Upon completion, check-in drawings into PG&E's system of record. 	<ul style="list-style-type: none"> As-built drawings

8.2 Distribution Engineering & Design Review Process

District Regulator Projects

Install District Regulator Station with Type 3 SCADA and maximum of 100 feet of main.

Scope of work is to provide detailed engineering design and estimating services for district regulator projects to be rebuilt and updated to current standards with Type 3 SCADA. The scope includes all work to complete the design package submittals at the 30%, 60%, 90% and Issued for Construction (IFC) phases and provide project management and administration for the project as further described in the following Work Tasks below. The scope does not include any work after approval of the IFC packages including but not limited to construction support and as-built drawings.

PG&E will provide the following:

- All as-builts, record drawings, gas plats, or other documentation necessary to complete work
- District Regulator design template in AutoCAD
- General scope of work including District Regulator sizing and location, SCADA type and location
- SCADA electrical power source and telecomm survey will be provided by PG&E.
- PG&E project management will schedule all job walks
- PG&E will be responsible for releasing construction materials in FFE upon IFC approval

	Work Tasks	Deliverables
Project Management	<ul style="list-style-type: none"> • Attend weekly or bi-weekly production meetings via conference call as required by PG&E • Attend weekly or bi-weekly project management meetings via conference call as required by PG&E • Provide monthly status updates as required by PG&E • Follow EDRS and SAP processes as defined by PG&E 	<ul style="list-style-type: none"> • Weekly progress update
30 Percent Design Package	<ul style="list-style-type: none"> • Project initiation • Base map drawings • Locate and mark coordination • Job walk • Site measurements and photographs • 30% design drawings submitted to PG&E through EDRS for approval 	<ul style="list-style-type: none"> • The 30% design package will include: <ul style="list-style-type: none"> ○ Existing and proposed facilities ○ Preliminary tie-in design ○ Facility conflict analysis ○ Site layout ○ Permit drawing ○ Internal review • The 30% design package will not include: <ul style="list-style-type: none"> ○ An in-person design review meeting ○ design details ○ bill of material ○ weld procedures ○ traffic control plans ○ professional engineers stamp ○ operating diagram, ○ STPR's ○ FFE • Deliverables due 5 working days after job walk

60 Percent Design Package	<ul style="list-style-type: none"> This task will encompass the continuation of the design drawings from 30% design through 60% design. The 60% design package will be submitted to PG&E through EDRS for approval. 	<ul style="list-style-type: none"> The 60% design package will include: <ul style="list-style-type: none"> Design drawings with 60% bill of material including identification of long lead materials Internal review The 60% design package will not include" <ul style="list-style-type: none"> An in-person design review meeting Traffic control plans Professional engineers stamp Operating diagram STPR's FFE Deliverables due 5 working days after 30% Design Package approval
90 Percent Design Package	<ul style="list-style-type: none"> This task will encompass the continuation of the design drawings from 60% design through 90% design. The 90% design package will be submitted to PG&E through EDRS for approval. 	<ul style="list-style-type: none"> The 90% design package will include: <ul style="list-style-type: none"> A complete set of design drawings with 90% bill of material and weld procedures Marked up operating diagrams STPR's If traffic control plans are required, they will be submitted as part of the 90% design package as a unit adder The 90% design package will not include: <ul style="list-style-type: none"> An in-person design review meeting Professional engineers stamp FFE Deliverables due 5 working days after 60% Design Package approval
IFC Design Package	<ul style="list-style-type: none"> This task will encompass the continuation of the design drawings from 90% design through IFC design. The IFC design package will be submitted through EDRS for approval. 	<ul style="list-style-type: none"> The IFC design package will include: <ul style="list-style-type: none"> A complete set of construction drawings with bill of material and weld procedures stamped and signed by a professional engineer Finalized operating diagram and STPR The completion of the FFE, including all coded and non-coded materials Deliverables due 5 working days after 90% Design Package approval

9.0 Exhibit B – Sample Semiannual Performance Scorecard

Metric Group	Weight Metric Group	Weight Key Performance Indicator	Key Performance Indicator	Key Performance Indicator Description	Score of 1	Score of 2	Score of 3 (meets expectations)	Score of 4	Score of 5
Cost	10%	50%	Cost	<ul style="list-style-type: none"> Cost per sheet Earned Value (Schedule, work complete, and dollars spent) 	Totally Dissatisfied	Mostly Dissatisfied	Meets Expectation	Mostly Satisfied	Totally Satisfied
		50%	Total Cost of Ownership	Total Cost of Ownership/Cost Reduction. Cost reduction suggestions by the Contractor, do not have to be accepted by PG&E.	No savings offered	Less than 1 percent	1 to 2 percent	2 to 3 percent	Greater than 3 percent
Safety	5%	100%	OSHA Recordable Rate	Recordable Injury/Illness Rate Target = PG&E average	Greater than 4 percent	3 to 4 percent	2 to 2.99 percent	1 to 1.99 percent	Less than 1 percent
Operations & Quality	30%	100%	Quality	<ul style="list-style-type: none"> Engineering milestone schedules met (30%/60%/90%/IFC) Number of design changes due to contractor error Change orders (# of change orders, value of change orders, reasons for change orders) Engineering deliverables schedule variance 	10% below target	5% below target	On target	5% above target	10% above target

				report					
Client Satisfaction	35%	100%	Client Satisfaction	Scored based on answers to Project Engineering Surveys	Totally Dissatisfied	Mostly Dissatisfied	Meets Expectation	Mostly Satisfied	Totally Satisfied
Supply Chain Responsibility	15%	100%	Diversity Subcontracting	Percentage of diverse subcontracting target achieved	10% below target	5% below target	On target	5% above target	10% above target
	5%	100%	EUISSCA Sustainability Survey	Contractors are scored based on their performance against PG&E's Supplier Environmental Performance Standards.	1 = Does not meet		3 = Meets		5 = Exceeds

Note: PG&E reserves the right to modify the Score Card criteria, weighted averages, and formatting at any time.

10.0 Exhibit C – Sample Earned Value Calculation

WBS	Budget	Duration Days
1.1 Excavate Footings	\$ 2,000.00	1
1.2 Construct Forms	\$ 5,000.00	2
1.3 Pour Concrete	\$ 7,000.00	1
Total	\$ 14,000.00	4

								CPI - i.e., for every dollar spent, we earned .91 cents	SPI - i.e., for every dollar planned, we accomplished .50 cents worth of work
Day 1		% Comp	PV	EV	AC				
1.1 Excavate Footings	\$ 2,000.00	50%	\$ 2,000.00	\$ 1,000.00	\$ 1,100.00			0.91	0.5
1.2 Construct Forms	\$ 5,000.00	0%	\$ -						
1.3 Pour Concrete	\$ 7,000.00	0%	\$ -						
	\$ 14,000.00		\$ 2,000.00	\$ 1,000.00	\$ 1,100.00			0.91	0.5
Day 2		% Comp	PV	EV	AC			CPI	SPI
1.1 Excavate Footings	\$ 2,000.00	100%	\$ 2,000.00	\$ 2,000.00	\$ 2,225.00			0.90	1
1.2 Construct Forms	\$ 5,000.00	25%	\$ 2,500.00	\$ 1,250.00	\$ 2,500.00			0.50	0.5
1.3 Pour Concrete	\$ 7,000.00	0%	\$ -	\$ -					
	\$ 14,000.00		\$ 4,500.00	\$ 3,250.00	\$ 4,725.00			0.69	0.72

11.0 Exhibit D - Sample Work Breakdown Structure (P6)

Major Milestones		234	113	08-Mar-17 A	08-Feb-18		
1030.1010	NTP	0	0	08-Mar-17 A		Completed	100%
1030.1020	Preliminary Design Finish	0	0		24-Apr-17 A	Completed	100%
1030.1030	30% Release	0	0		25-Aug-17*	Not Started	0%
1030.1040	60% Release	0	0		17-Oct-17*	Not Started	0%
1030.1050	90% Release	0	0		12-Dec-17*	Not Started	0%
1030.1060	IFC Release	0	0		08-Feb-18	Not Started	0%
Preliminary Design		34	0	08-Mar-17 A	19-May-17 A		
3020.1000	Initiate Preliminary Design	0	0	08-Mar-17 A		Completed	100%
3020.1010	Initial Records Research	20	0	08-Mar-17 A	04-Apr-17 A	Completed	100%
3020.1020	Stakeholders/ Tabletop Meeting	1	0	08-Mar-17 A	08-Mar-17 A	Completed	100%
3020.1030	Job Site Walk	1	0	09-Mar-17 A	09-Mar-17 A	Completed	100%
3020.1040	Routing Evaluation / Analysis	32	0	31-Mar-17 A	19-May-17 A	Completed	100%
30% Design		61	61	05-Jun-17	29-Aug-17		
4010.1000	Initiate 30% Drawings	0	0	05-Jun-17		Not Started	0%
4010.1010	Conduct Field Survey	20	20	05-Jun-17*	30-Jun-17	Not Started	0%
4010.1020	Receive Field & Utility Data	0	0		30-Jun-17	Not Started	0%

12.0 Exhibit E - Reimbursable Expenses Clarification

- 12.1 Subject to the following terms or as described in a duly executed Contract Work Authorization ("CWA"), the following requirements are in effect for Contractor's Reimbursable Expenses. In the event that any terms conflict with any prevailing union agreement or project labor agreement, Contractor shall notify PG&E with supporting documentation. Contractor shall make best efforts to minimize project costs, by reducing reimbursable expenditures related to the performance of the Work. All terms in this Exhibit shall also apply to Contractor's Subcontractors.
- 12.2 Expenditures will be reimbursed to Contractor for pre-approved lodging, meals, incidental travel, vehicle rental, fuel, personal vehicle mileage and other Reimbursable Expenditures while away from Contractor's Home Residence ("HR") or Principal Business Location ("PBL") while working at an authorized PG&E Work Duty Location ("WDL").
- 12.3 Definition:
- 12.3.1 "Expenditure Documentation" is defined as receipts or sufficient documentation as required by PG&E necessary to support and establish the nature and cost of all business expenditures.
- 12.3.2 "Home Residence ("HR")" is defined as the place or location that the Contractor lives. In the event that the Contractor's personnel have relocated on a semi-permanent basis, the location closest to PG&E's Work Duty Location shall be considered as the Home Residence.
- 12.3.3 "Work Duty Location ("WDL")" is defined as a work location that is different than the Contractor's principal business location.
- 12.3.4 "Per Diem Allowance ("PDA")" is defined as an allowance paid to Contractor for lodging, meals, and incidental expenses incurred when travelling explicitly related to performance of the Work. This allowance is **not** in lieu of providing Expense Documentation necessary to support the nature and cost of the actual travel expenses.
- 12.3.5 "Principal Business Location ("PBL")" is defined as the Contractor's business location or headquarters location.
- 12.3.6 "Reimbursable Expenses" are defined as reasonable travel (airline travel in coach class), lodging (excluding luxury accommodations), meal (excluding alcoholic beverages) and related expenses necessarily incurred by Contractor personnel in providing Work at a PG&E location or any other location requested by PG&E other than at a Contractor's PBL. Reimbursable Expenses shall not include personal costs such as entertainment, dry-cleaning, etc. Unless explicitly stated elsewhere, print outs, office supplies, parking, tolls, phone calls, faxes, internet, small tools, and consumables are not considered as Reimbursable Expenses. Charges for materials purchased on behalf of PG&E shall be Reimbursable Expenses only if pre-approved by PG&E, and PG&E shall have ownership of any such materials for which it pays Contractor.

12.4 Reimbursable Expenses General Provision:

12.4.1 If PG&E has not agreed that it shall pay for Reimbursable Expenditures in advance and in writing, PG&E shall not be responsible for Contractor's Reimbursable Expenditures. Expenses will be billed at actual cost and may not include any increase, mark up, burden or uplift. In no event shall PG&E be obligated to reimburse Contractor for any Reimbursable Expenditures incurred in excess of the budgeted expense amount specified in the relevant CWA. Contractor's personnel Reimbursable Expenditures for vacation travel and weekend travel including meal and incidental expenditures to non-WDLs shall not be allowed.

12.5 Expenditures when transit time of less than 12 hours:

12.5.1 If transit time from Contractor's HR or PBL to WDL is less than 12 hours, including work hours to complete a round trip from HR to WDL expenditures for lodging, meals and incidental expenses is not allowed.

12.6 Expenditures when transit time of more than 12 hours:

12.6.1 If transit time from Contractor's HR or PBL to WDL is more than 12 hours, including work hours to complete a round trip from HR to WDL, expenditures for lodging, meals and incidental expenses are allowed and subject to the terms of these Reimbursable Expenditure Requirements.

12.7 Personal Vehicle Mileage Reimbursement:

12.7.1 Personal vehicle mileage shall not be reimbursed for personal commuted travel within 50 mile radius (each way) of the Contractor's HR to PBL.

12.7.2 Personal vehicle mileage shall be reimbursed for round trip of authorized travel beyond 50 miles from the Contractor's HR to WDL and shall be reimbursed based upon the GSA vehicle mileage rate in force at the time of the travel. The maximum paid is 500 miles.

12.7.3 Personal vehicle mileage shall be reimbursed for authorized travel from Contractor's PBL to PG&E's WDL and return to the Contractor's PBL. The maximum paid is 500 miles.

12.8 Labor Rate Reimbursement of Personal Commute and Transit Time:

12.8.1 Reimbursement of Contractor's labor rates shall not be allowed for personal commute time from Contractor's HR to PBL.

12.9 Vehicle Rental Expenditures:

12.9.1 If Contractor is required to rent a vehicle while performing authorized PG&E Work, the vehicle (compact) shall be rented at a daily cost not to exceed \$40 exclusive of all taxes. Gasoline shall be reimbursed at actual cost. All such vehicle rental expenses shall be supported by receipts or other documentation sufficient to establish the nature and cost of such expenses. Rental of specialty vehicles such as off-road vehicles that exceed the \$40 per day cost limit shall require PG&E preapproval. PG&E will not reimburse for any additional fees or costs, including but not limited to fines, penalties, parking tickets, young driver surcharges and damage to vehicle.

12.10 Bus, Rail, and Other Forms of Transit Expenditures:

12.10.1 Unless explicitly stated elsewhere, reimbursement of other forms of transit (including bus and rail) shall not be allowed for personal commute time for a radius of 50 miles. If PG&E grants an exception for alternative forms of transportation (i.e. long bus or rail rides), the Contractor shall submit expenses

at actual cost and shall be billed on a pro-rated basis. The maximum reimbursement amount for transit time paid shall not exceed 8 hours.

12.11 Airline Ticket for Home Residence Leave:

12.11.1 A round-trip coach class airline ticket will be provided to the Contractor's personnel's home residence every eight (8) weeks while on assignment for PG&E in California. Contractors shall make flight selections based on the lowest available airfare and may not make a selection based on personal preference, e.g. airline, type of aircraft, seating preference or frequent flyer program. Airline tickets shall not be provided to Contractor's personnel for other destinations besides their home residence.

12.12 Reimbursable Expense Exceptions:

12.12.1 Exceptions to the expense reimbursement policy must be pre-approved in writing by a PG&E Manager level or above.

12.13 Personal Protective Equipment:

12.13.1 PG&E will provide Contractor Personal Protective Equipment (PPE) required at all Program related field locations. If PG&E cannot provide PPE due to extenuating circumstances, PG&E will reimburse relevant Contractor's personnel for PPE, as long as such costs are prudent and not already included in Contractor's fully burdened labor rates. Contractor is responsible for acquiring and using the PPE in an appropriate manner.

12.14 Miscellaneous Costs:

12.14.1 Miscellaneous costs such as routine telecommunications (including cell phone and internet), technology fees, copying, reproduction, electronic mail, facsimile transmissions, computer time and use of in-house technical software and equipment are considered to be part of Contractor's overhead costs and will not be reimbursed.

13.0 Exhibit F - Unifier Instructions and List of Attached Standards, Procedures, and Specifications

Each of the following documents are attached to this Contract and incorporated herein by reference. The documents may be revised and updated from time to time. Each Attachment is posted in the Unifier Document Management System or will be available via SAP. These Attachments describe the Work activities that are part of the specific tasks under this Contract.

Exhibit 8:	A00 Gas Design Standards Responsibility List
Exhibit 10:	As-Building
Exhibit 11:	CAD Standards Manual
Exhibit 12:	Drawing Creation Revision Guidelines
Exhibit 13:	Engineering Drawing Signature Requirements RP4461.1
Exhibit 14:	Equipment and Foreign Print Classifications
Exhibit 15:	Spec Sample Drawings
Exhibit 16:	Symbols Standard for Electric Estimating and Mapping S5451
Exhibit 17:	Symbols Standard for Gas (new)
Exhibit 18:	Symbols Standard for Gas
Exhibit 19:	Utility Standard: TD-4125S MAOP Requirements for Gas T&D and Gathering Lines
Exhibit 20:	Utility Procedure: TD-4100P-14 Removing, Documenting, and Preserving Gas Transmission Pipe and Components
Exhibit 21:	Utility Procedure: TD-4137P-01 Test Procedure for New Pipelines
Exhibit 22:	Utility Procedure: TD-4137P-02 Test Procedure for Existing Pipelines
Exhibit 23:	Utility Procedure: TD-4137P-03 Drying Procedure for Pipelines
Exhibit 24:	Utility Procedure: TD-4137P-04 Test Procedure for Pipelines Using Air, Inert or Natural Gas
Exhibit 25:	Utility Standard: TD-4137S Pipeline Test Requirements
Exhibit 26:	Utility Standard: TD-4461S Gas As-Built Packages
Exhibit 27:	Utility Standard: TD-4551S Station Critical Documentation
Exhibit 29:	Utility Procedure: TD 2950P-01 Electric Distribution New Product Approval
Exhibit 30:	Utility Procedure: TD 4001P-04 Gas Product and Supplier Approval
Exhibit 31A, B, C:	Corrosion: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 32A, B, C:	DIGS: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 33A, B, C:	ILI: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 34A, B, C:	Pipeline: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 35A, B, C:	Shorts-Emergent: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 36A, B, C:	Station: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 37A, B, C:	Strength Test: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 38A, B, C:	Valve Automation: 30/60/90% Design Review Deliverables – PM Checklist
Exhibit 39:	Design Review Meeting Guideline
Exhibit 40:	GT Plant ED RACI matrix

ATTACHMENT 2: GENERAL CONDITIONS**NATURAL GAS CONSULTING AND FIELD SERVICES****TABLE OF CONTENTS**

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Each of the following documents is attached hereto and incorporated herein:

EXHIBIT DATA-1	Confidentiality and Data Security (2 pages)
EXHIBIT DATA-1A	Non-disclosure and Use of Information Agreement ("NDA") (1 page)
EXHIBIT LME	Daily Statement of Labor, Material, and Equipment (1 page)
EXHIBIT 1	Prime Supplier Subcontracting Plan Instructions (1 page)
EXHIBIT 1A	Prime Supplier Subcontracting Plan (1 page)
EXHIBIT 2	PG&E's Supply Chain Responsibility Policy (1 page)
EXHIBIT 2A	Policy Regarding Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (1 page)
EXHIBIT 3	Injury and Illness Prevention Program Compliance Certificate (1 page)
EXHIBIT 4	PG&E Drug and Alcohol Abuse and Testing Policy (1 page)
EXHIBIT 5	PG&E Contractor Document Retention and Production Requirements (1 page)
EXHIBIT 5A	Document and Data List (1 page)
EXHIBIT 6	Audit Rights (1 page)
EXHIBIT 7	NERC Requirements (2 pages)
EXHIBIT 7A	PG&E NERC CIP Program Non-Employee Attestation Form (1 page)

GENERAL CONDITIONS**1. DEFINITIONS**

When used in this Contract, the following terms have the specified meaning:

- 1.1 "APPROVED EQUIVALENT": An item approved by PG&E as an acceptable substitute for an item specified in the Contract.
- 1.2 "AS DIRECTED," "AS REQUIRED," "AS PERMITTED," "APPROVED," "ACCEPTABLE," "SATISFACTORY," or similar terms shall mean by or to PG&E.
- 1.3 "BIDDER": The person or entity submitting a bid Proposal to PG&E to perform Work under this Contract or a CWA.
- 1.4 "CHANGE ORDER": A Contract document signed by both parties which modifies the price, schedule, or other terms of the Contract. In addition, a Change Order may include a Field Order.
- 1.5 "CONTRACT": This executed agreement between PG&E and Contractor, including the signature page, the Specific Conditions and these General Conditions, together with any other attachments, appendices and exhibits specifically incorporated therein. The Contract also includes each CWA, if any.
- 1.6 "CONTRACTOR" or "CONSULTANT": The party or parties entering into this Contract with PG&E to perform the Work.
- 1.7 "CONSTRUCTION SERVICES": For purposes of this Contract, "Construction Services" comprises physical Work hereunder that is not Professional Services.
- 1.8 "CPUC": The California Public Utilities Commission.
- 1.9 "CUSTOMER(s)": PG&E's residential and commercial utility customers.
- 1.10 "CWA": Contract Work Authorization. If specified in the Specific Conditions of this Contract, Work may be assigned to Contractor through CWAs which are signed by both PG&E and the Contractor. The terms and conditions of this Contract, as it may be amended, shall apply independently to each CWA executed by both Parties.
- 1.11 "FERC": The United States Federal Energy Regulatory Commission.
- 1.12 "HAZARDOUS MATERIALS" and "HAZARDOUS WASTE": Any material defined as such in any local, state or federal rule, regulation, law or code for the location in which the Work is performed. This includes, but is not limited to, the definition of Hazardous Material and Hazardous Waste set forth in the California Health and Safety Code, Division 20, Chapter 6.95.
- 1.13 "MALICIOUS CODE": Collectively, any malicious or unauthorized code, scripts, routines or techniques (including without limitation any virus, spyware, ransomware or other malware) that is designed to erase data or programming, or infect, impair, modify, record, take control of, disrupt, damage, destroy, disable, shut down or permit or cause unauthorized access to or misuse of a computer system or any component thereof.
- 1.14 "NERC": North American Electric Reliability Corporation, which enforces reliability standards with all users, owners and operators of the bulk power system in the United States.
- 1.15 "PG&E": Pacific Gas and Electric Company, a California corporation.
- 1.16 "PG&E('s) REPRESENTATIVE": The PG&E work supervisor assigned to the project and identified in the Contract, the applicable CWA, or in writing by PG&E.
- 1.17 "PROFESSIONAL SERVICES": For purposes of this Contract, "Professional Services" are tasks hereunder that are primarily intellectual rather than manual, including but not limited to inspections, the preparation of

written reports, engineering, drawings and applications. Professional Services may include both office and field Work.

- 1.18 "PROPOSAL": The bid quotation and package to perform Work under this Contract as submitted by Bidder to PG&E.
- 1.19 "SPECIFICATION": PG&E's specification for the Work, which includes these General Conditions, the Specific Conditions, and any addenda to these.
- 1.20 "SUBCONTRACT": An agreement between Contractor and Subcontractor or between Subcontractors at any level for a portion of the Work under this Contract.
- 1.21 "SUBCONTRACTOR": The entity or entities entering into a Subcontract with Contractor or another Subcontractor to perform a portion of the Work covered by the Contract. The obligations of Contractor, where set forth in the Contract, shall also apply to Subcontractors.
- 1.22 "WORK": All supervision, labor, materials, equipment and requirements necessary for the Contractor to fulfill the Contract requirements, regardless of whether or not they are specified in the Contract. Work includes both Professional Services and Construction Services.

2. PROPOSALS

- 2.1 GENERAL: The Proposal shall be submitted on the Proposal Form in accordance with PG&E's instructions and delivered to PG&E on or prior to the date and time specified. The signed Specification and drawings shall be forwarded with the Proposal. PG&E RESERVES THE RIGHT TO REJECT ANY OR ALL PROPOSALS AND TO ACCEPT A PROPOSAL OTHER THAN THE LOWEST COST PROPOSAL.
- 2.2 SUPPLY CHAIN RESPONSIBILITY: All Bidders must describe with their submission how they will comply with the requirements of **Exhibit 2**, "PG&E's Supply Chain Responsibility Policy." The requirements of **Exhibit 2** and the successful Bidder's response will be deemed incorporated into the Contract.
- 2.3 PROPOSAL PRICING: Bidder shall quote prices in accordance with the work as classified in the Proposal Form. Prices quoted shall include all applicable taxes. Each Proposal will be evaluated by PG&E using a formula of weighted and defined criteria.
- 2.4 CONFIRMATION OF PROPOSAL: Bidder may be requested to confirm the Proposal in writing. Bidder may not alter the quoted prices and must either stand by the Proposal or withdraw the Proposal without prejudice.
- 2.5 TIME: Contractor shall perform the Work in as short a time as practicable consistent with good workmanship and without overtime, unless otherwise specified. Time quoted by Bidder for completion of the Work will be an important consideration in making the award of Contract. The time so stated will be incorporated in the Contract.
- 2.6 BOND: If required by PG&E, Contractor shall furnish a surety bond securing performance of Contract and payment of labor and material bills in the amount of 100% of the Contract price. Contractor will be separately reimbursed for the actual premium cost thereof.
- 2.7 UNBALANCED PRICES: PG&E will not honor claims by Contractor resulting from unbalanced bid prices where Contractor has quoted unit prices that are either over or under Contractor's estimated cost.
- 2.8 WORKSITE CONDITIONS: It will be assumed that Bidder has visited the worksite and that the Proposal is based on a full knowledge of all conditions that would affect the cost and conduct of the Work. By appointment, PG&E will conduct Bidder over the worksite and will indicate the various features of the Work. Bidder shall inform itself fully and shall assume the risk as to the physical conditions at the worksite, including as applicable: (1) subsurface geology, borrow pit conditions and spoil disposal areas; (2) the availability, location, and extent of construction and storage areas and other facilities or structures above and below ground, including but not limited to, gas, water, sewer, electrical and communication utilities; (3) necessary safety precautions and safeguards; (4) dimensions not shown on the drawings; (5) the extent of established lines and levels; (6) work to be performed by PG&E or others; and (7) rules, regulations and requirements to be observed by Contractor in the conduct of the Work. LACK OF KNOWLEDGE OF EXISTING CONDITIONS WILL NOT BE ACCEPTED AS AN EXCUSE FOR FAILURE TO PERFORM THE

SPECIFIED WORK, NOR SHALL SUCH EXCUSE BE ACCEPTED AS A BASIS FOR CLAIMS FOR ADDITIONAL COMPENSATION.

- 2.9 TRADES: Various branches or trades into which the Work is to be divided are described under separate divisions. Materials may be furnished and Work performed in accordance with those divisions or otherwise at Contractor's option. Contractor shall, in accepting the bid of a Subcontractor for a given trade or class of Work, determine that the Work to be performed by that trade is included in the Subcontractor's bid, whether or not specifically required within the division relating to such trade or class of Work.
- 2.10 QUALIFICATION: CONTRACTOR'S LICENSE LAW: To qualify for Work subject to the California Contractor's License Law, Chapter 9 of Division 3 of the Business and Professions Code, Bidder or Contractor, as the case may be, shall provide PG&E with written confirmation that Contractor holds the appropriate contractor's license(s) for the Work. For each applicable license, Bidder/Contractor shall also identify the type of license, the license number, and the expiration date.

3. DRAWINGS, SPECIFICATION, AND INFORMATION

- 3.1 DISCREPANCIES: The Specification and drawings are complementary and are intended to be consistent with each other. Contractor shall promptly report in writing to PG&E any discrepancies, errors, or inconsistencies in the Specification or drawings.
- 3.2 DIMENSIONS: Unless otherwise specified, Contractor shall obtain the necessary dimensions at the Work site and shall not rely on the drawings for dimensions which connect with or tie into existing work. No claim will be honored which is a result of failure to comply with this requirement.
- 3.3 CONSTRUCTION DRAWINGS: As soon as possible after award of Contract, PG&E will provide approved construction drawings for use in the performance of the Work. Bidding drawings shall not be used for construction purposes unless authorized in writing by PG&E.
- 3.4 CHANGES: Requests by Contractor for any changes in the requirements of the Specification and drawings shall be clearly and specifically identified in writing and brought to the attention of PG&E for written approval of PG&E. No changes will be authorized without such written approval.
- 3.5 CONTRACTOR'S DRAWINGS AND SPECIFICATION: If Contractor prepares specifications, calculations, and drawings, they shall be approved in writing prior to use. Notwithstanding such approval, Contractor shall be responsible for the accuracy, practicability, and correctness of its specifications, calculations, and drawings, none of which shall operate to change the Specification or PG&E's drawings unless Contractor submits a written statement clearly describing the specific changes to the Specification or PG&E's drawings and obtains PG&E's written prior approval of the changes. In the event of conflict between this Specification or PG&E's drawings and Contractor's specifications, calculations, or drawings, the former shall prevail. Engineering Work performed by Contractor shall be in accordance with the California Civil and Professional Engineers Act.
- 3.6 REFERENCES: References to standard specifications, codes, and requirements of organizations, such as the American Society for Testing and Materials (ASTM), American Institute of Steel Construction (AISC), and others, are referenced to the latest issue thereof, unless otherwise specified. Requirements of referenced specifications shall be deemed a part of this Contract. In case of a conflict between the requirements of this Contract and those of the referenced specifications, the most stringent shall govern.
- 3.7 BRAND NAME: When the specification or drawings designate an item by brand name, the Contractor shall use that designated item or an Approved Equivalent. Furnishing or installing or both of an item shall be in accordance with the manufacturer's recommendations or specifications unless otherwise specified herein.
- 3.8 ESTIMATED QUANTITIES, WEIGHTS, OR DATA: Quantities, weights, or data made available to Contractor by PG&E for preparation of its Proposal or for performance of the Work shall not relieve Bidder or Contractor of the responsibility to satisfy itself through investigations as to conditions affecting the cost and performance of the Work. While estimated quantities and information submitted are the best available at the time, PG&E assumes no responsibility for the accuracy of such information or for Contractor's conclusions drawn therefrom.

- 3.9 MATERIALS AND WORKMANSHIP: Materials and workmanship shall be new, first class in every respect, plumb and true, and shall comply with the requirements of the Specification and drawings. Materials and workmanship shall be subject to the inspection of PG&E. If Contractor fails to provide materials and workmanship in compliance with the Specifications and drawings, PG&E reserves the right to cancel the Contract for cause. Contractor shall furnish all labor, materials, equipment, and services required for the Work unless otherwise specified.

4. PERFORMANCE OF THE WORK

- 4.1 IMPORTANCE OF SAFETY: Contractor recognizes and agrees that safety is of paramount importance in the performance of the Work and that Contractor is responsible for performing the Work in a safe manner. Contractor shall plan and conduct the Work, and shall require all Subcontractors to perform their portion of the Work, in accordance with Contractor's safety program and with all applicable local, state and federal rules, regulations, codes, and ordinances to safeguard persons and property from injury. Contractor further agrees to provide necessary training to its employees and Subcontractors to inform them of the foregoing safety and health rules and standards. Should PG&E at any time observe Contractor, or any of its Subcontractors, performing the Work in an unsafe manner, or in a manner that may, if continued, become unsafe, then PG&E shall have the right (but not the obligation) to require Contractor to stop the Work affected by the unsafe practice until Contractor has taken corrective action so that the Work performance has been rendered safe.
- 4.2 MATERIALS, WORKMANSHIP AND INSTALLATION: Materials and workmanship shall be new, first class in every respect, plumb and true, and comply with the requirements of the Contract and drawings. Materials and workmanship shall be subject to the inspection of PG&E. If Contractor fails to provide materials and workmanship in compliance with the specifications and drawings, PG&E reserves the right to cancel the Contract for cause. Contractor shall furnish all labor, materials, equipment, and services required for the Work unless otherwise specified.
- 4.2.1 PRIOR WORK: Work performed by Contractor pursuant to PG&E's authorization, but before the execution of this Contract, shall be considered as having been performed subject to the provisions of this Contract.
- 4.2.2 CONSERVATION: In view of the national need to conserve resources, material and energy, Contractor shall plan and conduct the Work in the most efficient way practical consistent with accepted construction practices.
- 4.2.3 NO ADVERTISING: Contractor shall neither advertise nor allow advertising at the worksite without prior written approval.
- 4.2.4 CONTRACTOR'S REPRESENTATIVE: During construction, Contractor shall retain a qualified representative in charge at the Worksite who will supervise and exercise control over the Work, including that of Subcontractors. Contractor shall provide PG&E with written notice of the name and contact information for Contractor's representative in charge of the Work.
- 4.2.5 LAYING OUT WORK: PG&E will provide the bench marks and control lines necessary for Contractor to lay out the Work. Contractor shall lay out and construct the Work accurately to the lines and elevations shown on the drawings. Survey field notes of points set by Contractor shall be available to PG&E. Contractor shall check the lines, dimensions, and elevations of each portion of the Work as it is completed to insure the proper construction of subsequent Work. Discrepancies shall be reported immediately to PG&E. Contractor shall use reasonable precautions to preserve established lines and grades.
- 4.2.6 OBSTRUCTIONS, CUTTING AND PATCHING: Cutting of masonry, steel, woodwork, and other materials already in place, to accommodate the Work, shall be at Contractor's expense. Work shall be performed only after securing PG&E's approval regarding the location and extent of such cutting. Obstructions to the Work shall be removed by Contractor, unless otherwise specified. Removed obstructions shall be repaired or replaced at Contractor's expense.
- 4.2.7 CLEANUP: With respect to its own operation, Contractor shall maintain the worksite and related structures, equipment, and facilities in a clean, orderly condition during progress of the Work and

clean up debris to the satisfaction of PG&E. Where more than one contractor is working at the worksite, and there is a disagreement in regard to the amount of cleanup each shall perform, PG&E will designate the amount of cleanup work each contractor shall perform. If, in PG&E's opinion, the worksite is not being kept in a clean, orderly condition and if Contractor fails to correct the condition following notice, PG&E may shut down the Work until cleanup is performed or order others to perform cleanup work at Contractor's expense. Building surfaces, including glass, shall be left clean. Immediately prior to placing the Work in service or before Contract completion, Contractor shall remove its tools, construction equipment, debris, and waste material from the worksite and leave the area in a clean and orderly condition to PG&E's satisfaction.

- 4.3 EQUIPMENT: The following provisions apply to the extent Contractor furnishes any equipment or material under this Contract:
- 4.3.1 EQUIPMENT DESIGN: Equipment and material furnished hereunder shall be so designed and fabricated that when installed it will comply with applicable laws, rules and regulations, including without limitation, the General Industry Safety Orders of the Division of Occupational Safety and Health, Department of Industrial Relations, State of California, which must be complied with before the equipment and material may lawfully be used by PG&E in California. Expenses incurred in complying with these requirements shall be included in the Contract prices.
- 4.3.2 INSTALLATION OF EQUIPMENT: Equipment shall be installed level, properly aligned, and completely assembled in accordance with the manufacturer's standards and left in acceptable operating condition.
- 4.3.3 EQUIPMENT MANUALS AND DOCUMENTATION: For all equipment provided under this Contract, Contractor shall deliver to PG&E, for use by PG&E and contractors performing work for PG&E, copies of all instruction manuals, drawings, data, processes and procedures, or other information required to operate, service and maintain the equipment.
- 4.3.4 SUPPLIER QUALITY ASSURANCE (SQA) MANAGEMENT SYSTEM: Contractor shall comply with PG&E's material quality requirements to assure safety, reliability, and affordability of procured material. Material quality requirements apply to direct material suppliers to PG&E for products and custom tools used in power generation (excluding nuclear) and the transmission and distribution of natural gas and electricity. Non-compliance with PG&E requirements and/or problematic quality may lead to consequences including but not limited to Contractor probation with additional Contractor cost related to oversight performed by PG&E Supplier Quality and/or contracted third parties, and/or business diverted to another supplier. Contractor is responsible for complying with PG&E's Supplier Qualification Manual, SCM-2104M, as it may be revised from time to time. The Manual is incorporated into this Contract by reference and is available at PG&E's website, [www.PGE.com](http://www.pge.com), at the following link: <http://www.pge.com/includes/docs/pdfs/b2b/purchasing/suppliers/SupplierQualificationManual.pdf>
- 4.4 COORDINATION AND INSPECTION:
- 4.4.1 PG&E'S REPRESENTATIVE: The PG&E Representative will be identified in the Contract, the applicable CWA, or otherwise in writing. Contact between Contractor and PG&E shall be through the PG&E Representative unless otherwise specified. Contractor shall promptly submit any questions concerning the Contract, including the meaning of its terms and the sufficiency of Contractor's performance, to the PG&E Representative for a decision. PG&E's decision, in the exercise of reasonable judgment, shall be final.
- 4.4.2 COORDINATION OF WORK: Contractor shall coordinate its Work with work to be performed by others, so that the entire project will be economically completed with the least delay and inconvenience to all involved. Contractor shall make necessary and proper provisions to accommodate the work of others and shall cooperate in the use of equipment and in the exchange of templates and other data to ensure the proper performance of the Work.
- 4.4.3 PG&E'S OPERATIONS: Contractor shall conduct the Work in a manner that will cause a minimum of inconvenience to PG&E, its employees, and the general public. PG&E's business and public utility operations must be maintained without interruption during the progress of the

Work, and no unnecessary interference will be permitted. Contractor shall notify the PG&E Representative at least 72 hours in advance of any Work which Contractor knows or believes may interfere with PG&E's business or utility operations. Contractor's failure to notify PG&E as required by this provision may result in cancellation of the Contract or applicable CWA for cause.

- 4.4.4 USE OF FACILITIES: PG&E shall have the use of the facilities constructed hereunder at any time during construction, whether such facilities are completed or not. If PG&E makes use of any uncompleted facility, PG&E will reimburse Contractor for any actual expense incurred as a result of its use.
- 4.4.5 INSPECTIONS AND TESTS: PG&E has the right to make field and shop inspections and tests, and PG&E's inspectors shall have access to the Work. Neither the making nor the failure to make inspections and tests by PG&E nor the express or implied approval by PG&E of any part of the Work shall relieve Contractor of the responsibility to complete and guarantee the Work as specified. Rejected Work shall be corrected as directed by PG&E at sole expense of Contractor.

- 4.5 CORRECTIVE ACTION PLAN: Except as otherwise provided in this Contract, Contractor shall meet or achieve each milestone or deliverable for the Work by the applicable date. If PG&E reasonably believes that Contractor is not making substantial progress, or if Contractor fails to achieve a milestone or complete a deliverable by the applicable date, and such failure is not attributable to reasons entitling Contractor to a Contract Change Order, then Contractor shall provide for PG&E's approval a corrective action plan that will demonstrate achievement at the earliest possible date to minimize delay of the Work schedule. Such corrective action plan shall include, without limitation, reasonable evidence of increases in Contractor's work force, increases in the number of shifts, overtime operations, additional days of Work per week, and such other evidence (including schedule analysis) as necessary for the timely completion of the Work. Upon receipt of PG&E's written concurrence, Contractor shall diligently comply with such corrective action plan; provided, however, that PG&E's concurrence shall not affect any of PG&E's rights or Contractor's obligations under this Contract.

5. WORK SITE SAFETY

- 5.1 IMPORTANCE OF SAFETY: Contractor recognizes and agrees that safety is of paramount importance in the performance of the Work and that Contractor is responsible for performing the Work in a safe manner. Contractor shall plan and conduct the Work, and shall require all Subcontractors to perform their portion of the Work, in accordance with Contractor's safety program and with all applicable local, state and federal rules, regulations, codes, and ordinances to safeguard persons and property from injury. Contractor further agrees to provide necessary training to its employees and Subcontractors to inform them of the foregoing safety and health rules and standards. Should PG&E at any time observe Contractor, or any of its Subcontractors, performing the Work in an unsafe manner, or in a manner that may, if continued, become unsafe, then PG&E shall have the right (but not the obligation) to require Contractor to stop the Work affected by the unsafe practice until Contractor has taken corrective action so that the Work performance has been rendered safe.
- 5.2 HAZARDOUS MATERIALS AND HAZARDOUS WASTE
- 5.2.1 STORAGE: Surplus Hazardous Materials and Hazardous Wastes connected with material brought to the site by Contractor are the property and responsibility of Contractor and may not be stored or disposed of on or at the Work site. Contractor represents and warrants that any facility to which Hazardous Wastes may be moved is in compliance with any and all federal, state, and local laws, rules and regulations pertaining thereto and that the facility is suitable to receive and/or dispose of, and may lawfully receive and/or dispose of the Hazardous Wastes.
- 5.2.2 DISCOVERY AND NOTICE TO PG&E: If Contractor discovers Hazardous Waste or Hazardous Material on the job site during the performance of the Work, Contractor shall immediately take the following steps: (1) secure the area around the Hazardous Waste or Hazardous Material, and (2) notify PG&E.
- 5.2.3 LAWFUL DISPOSAL OF SAMPLED AND OTHER WASTE: If the scope of Work under this Contract requires Contractor to perform Hazardous Waste site investigations, PG&E will be responsible for disposal of onsite samples. Charges for disposal of samples taken offsite for

testing are included in the Contractor's rates. Contractor shall lawfully dispose of all test samples after completion of the required tests, along with any residue or byproducts of the testing process. Contractor shall comply with all of the existing federal, state and local laws, rules, regulations, and/or ordinances applicable to the Services to be performed, including but not limited to, to the extent applicable, the Code of Federal Regulations, Title 40, Part 260 et seq. and the California Health and Safety Code, Section 25, 100 et seq., and the Title 22, California Code of Regulations, Section 66,000 et seq.

- 5.3 SAFETY PROGRAM: Contractor shall have an ongoing safety training program for Contractor's personnel involved in the Work. Compensation for safety and first aid training shall be included in the Fees for the Work set forth in this Contract, and there shall be no separate compensation for Contractor's personnel to attend such training.
- 5.3.1 WORK AND SAFETY PROGRAM: Contractor will have a work and safety program and rules for the Work. Contractor shall enforce its work and safety requirements for all Work performed on the work site. Contractor will ensure that all Contractor personnel receive, read and sign a copy of the work and safety rules. Contractor shall retain proof of compliance for PG&E's inspection upon request. Contractor will designate a safety contact person for all matters concerning Contractor's work and safety programs.
- 5.3.2 FIRST-AID FACILITIES: If first-aid facilities are required, Contractor shall furnish, stock, and provide the necessary qualified personnel to maintain such first-aid facility at Contractor's expense unless other provisions are made and agreed upon with PG&E. Nothing contained in the Contract shall relieve Contractor from providing and maintaining all stretchers, blankets, first-aid material, and first-aid kits as required by applicable safety order of the State of California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) or as required by other federal, state or local laws, rules or regulations.
- 5.3.3 STANDBY VEHICLES(S): If one or more standby vehicles are required for the transporting of seriously injured personnel, Contractor shall furnish, maintain and operate such vehicle(s) at Contractor's expense unless other provisions are made and agreed upon with PG&E. If a standby vehicle is provided for transporting seriously injured project personnel to medical facilities, Contractor shall have available specifically assigned workers who are qualified to drive the vehicle and to care for the injured in case of emergency.
- 5.3.4 SITE SAFETY PLAN: When required by federal OSHA regulations (29 CFR 1910.120), by other legal requirements, or by PG&E, the Contractor shall provide a written site safety plan for acceptance by PG&E and the applicable regulatory agency(s) as required, prior to commencement of Work. The site safety plan shall establish policies and procedures for protecting the health and safety of personnel during all operations conducted at a site with hazardous or suspected hazardous materials. The plan shall contain information about the known or suspected hazards, routine and special safety procedures that must be followed, and other instructions for safeguarding the health and safety of all affected personnel.
- 5.4 SAFETY EQUIPMENT AND TRAINING: Contractor shall provide its employees with applicable safety equipment and training. Contractor shall have available and if requested, submit to PG&E, a copy of a written respiratory protection program in accordance with Cal-OSHA GISO section 5144 and 29 CFR 1910.134. Contractor shall have available and if requested, submit to PG&E, a copy of other safety and hazardous waste and hazardous material training documentation. Contractor shall have the necessary respiratory equipment required to enter a "Category II" environment as defined in section 6.3 of API Pub 2015.
- 5.5 WORK HOURS AND REST PERIODS: Contractor's employees shall be in good physical and mental health when involved in the activities described in this Contract. If nature of Work requires continuous activities for greater than twenty four (24) hours, Contractor will ensure that fresh personnel are available to continue the Work. If Work is to continue for a period exceeding 24 hours, Contractor shall implement a plan for ensuring fresh personnel shall be available to do the Work, subject to approval by PG&E. Contractor shall comply with all federal and state laws and regulations and standard industry practices regarding work hours and rest periods for the type of Work involved.

- 5.6 PG&E'S RIGHTS: PG&E will have the right, from time to time, to undertake a safety performance audit of Contractor's Work, work practices, tools, equipment and materials. PG&E may, at any time and in its sole discretion, suspend all or a portion of the Work for safety-related reasons. Contractor will take immediate, appropriate corrective action. Notwithstanding any other provisions of the order, neither the suspension of the Work nor any corrective action taken will result in any increase in the contract price or extension of the schedule for the Work. PG&E's receipt of Contractor's emergency action plan, safety plan, environmental plan or any other safety and health related information does not imply that PG&E endorses the plan. Contractor is responsible for performing the Work in compliance with all applicable laws and legal requirements.
- 5.7 CONTRACTOR RESPONSIBILITY: Although PG&E may monitor Contractor's safety performance, may review safety performance with Contractor's safety contact person, or may suspend the Work for safety-related reasons, these actions are the primary purpose of protecting PG&E personnel and property. Contractor will remain responsible for the safe performance of the Work under this Contract. The provisions of this Article will be interpreted and construed in a manner consistent with Contractor's status as an independent contractor.

6. PERMITS AND LEGAL REQUIREMENTS

- 6.1 NO GUARANTEE OF WORK: THIS IS NOT AN EXCLUSIVE CONTRACT. THIS CONTRACT DOES NOT GUARANTEE CONTRACTOR ANY VOLUME OR DURATION OF WORK. PG&E EXPRESSLY RESERVES ALL ITS RIGHTS, INCLUDING BUT NOT LIMITED TO THE RIGHT TO CONTRACT WITH THIRD PARTIES FOR THE PERFORMANCE OF WORK OF THE TYPE CONTEMPLATED BY THIS CONTRACT; THE RIGHT TO REQUEST PROPOSALS FROM OTHERS WITH OR WITHOUT REQUESTING PROPOSALS FROM CONTRACTOR AND THE UNRESTRICTED RIGHT TO PERFORM THE WORK WITH PG&E'S OWN EMPLOYEES.
- 6.2 INDEPENDENT CONTRACTOR: In assuming and performing the obligations of this Contract, Contractor is an independent contractor and shall not be eligible for any benefits which PG&E may provide its employees. All persons, if any, hired by Contractor shall be employees or Subcontractors of Contractor and shall not be construed as employees or agents of PG&E in any respect.
- 6.3 TIMELY PERFORMANCE OF WORK: Contractor shall schedule and perform its Work to ensure completion in accordance with Contract milestone dates. Failure to meet Contract milestones or the completion date can result in significant damage to PG&E including but not limited to direct cost to recover time lost, claims paid to other contractors resulting from Contractor's delay, additional cost of inspection and project administration resulting from Contractor's delay and additional actual cost of project financing resulting from Contractor's delay. Time of completion is a material provision of the Contract.
- 6.4 LIENS AND CONSTRUCTION LENDERS
- 6.4.1 Contractor shall discharge at once, and hold PG&E harmless from, liens or stop notices that may be filed in connection with the Work. PG&E may retain from Contract payments sufficient funds to discharge delinquent accounts of Contractor or a Subcontractor for which liens on PG&E's property have been or can be filed or for which stop notices have been or can be filed, and PG&E may at any time pay therefrom, for Contractor's account by joint check or otherwise, such amounts as are admittedly due thereon. Contractor must furnish lien releases to PG&E.
- 6.4.2 In accordance with California Civil Code Section 8210, PG&E represents that there are no construction lenders for this Work. Contractor shall make this information available to any person seeking to serve the notice specified in California Civil Code Section 8200.
- 6.5 RISK OF LOSS OR DAMAGE TO WORK: The risk of loss or damage to the Work and materials shall remain with Contractor until the Work is completed and accepted by PG&E. No damages or extras will be allowed for unforeseen difficulties or obstructions.
- 6.6 GAS OPERATION QUALIFICATION PLAN: If the Work provides for Contractor to perform tasks or subtasks identified by PG&E as work covered by the Department of Transportation Operation Qualification Guidelines listed in 49 CFR 192 and 195 and in PG&E's Gas Operation Qualification Plan, Contractor and Subcontractor(s) must be qualified to perform such Work. Furthermore, Contractor and Subcontractor(s)

must be able to recognize and react appropriately to abnormal operating conditions that may indicate a dangerous situation or a condition exceeding design limits.

- 6.6.1 **DOCUMENTATION OF COMPLIANCE:** Contractor and Subcontractor(s) shall, in order to verify compliance with, and qualifications under, both the DOT Operator Qualification Rule and PG&E's DOT Operator Qualification Plan, provide copies of (i) Contractor's and/or Subcontractor's Qualification Plan; (ii) Certification of compliance with DOT Operator Qualification Guidelines, dated and signed by Contractor; and (iii) Certification of performance-based testing for each Contractor or Subcontractor employee assigned to perform covered tasks/subtasks, clearly identifying the individual certified. Before beginning Work, Contractor shall submit the above documents to:

PG&E Operator Qualification Specialist
GSM & TS
375 North Wiget Lane, Suite 200
Walnut Creek, California 94598

- 6.6.2 **DOCUMENTATION OF INDIVIDUALS:** The documentation that supports an individual's qualification must, as a minimum, include: (i) the identity of the individual including, but not necessarily limited to, full name and the last four digits of the Social Security Number or, preferably, the employee number; (ii) identification of each task/subtask for which he/she is qualified; (iii) date of Qualification for each task/subtask; (iv) Qualification frequency as determined by Pacific Gas and Electric Company; (v) last Qualification date; and (vi) Qualification Method – oral, written, and/or performance-based.
- 6.6.3 **PG&E QUALIFICATION:** PG&E, at its option, may also require that Contractor and Subcontractor personnel be qualified under PG&E's Gas Operation Qualification Plan. In such event, PG&E's Operator Qualification Specialist will advise Contractor of the location, date and time for qualification. PG&E may require that the entire crew be qualified or that only lead personnel be qualified. PG&E will provide Contractor with copies of all qualification documents prior to start of covered Work.
- 6.6.4 **EXPIRATION OF QUALIFICATIONS:** All Contractor and Subcontractor qualifications will expire upon Final Completion of the project or as determined, in writing, by PG&E.
- 6.6.5 **RECORD KEEPING:** As defined in Record Keeping in Section 1.8 of PG&E's Operator Qualification – Basic Plan, Contractor and Subcontractor(s) must maintain records of individual qualification while the individual is performing covered tasks/subtasks and for a minimum period of five years after the individual is no longer performing covered tasks/subtasks.
- 6.6.6 **CONTRACTOR RESPONSIBILITIES:** Contractor shall be responsible for all penalties and costs associated with Contractor or Subcontractor failure to comply with the foregoing. Contractor shall notify PG&E immediately of any changes in the status of the employee or Subcontractor that affects their qualification to perform covered tasks.
- 6.7 **MOTOR CARRIER OF PROPERTY PERMIT:** This Section is applicable if in the course of the Work hereunder, Contractor or any Subcontractor will operate any motor vehicle(s) subject to regulation under the Motor Carriers of Property Permit Act, California Vehicle Code §§ 34600-34605. In order to perform any transportation services under this Contract, Contractor and any Subcontractor(s) must have a valid Motor Carrier of Property Permit ("MCP") issued to the operator by the California Department of Motor Vehicles.
- 6.7.1 Contractor represents and warrants to PG&E as follows:
- (a) Contractor has a valid MCP to perform any transportation services under this Contract;
 - (b) On or before the effective date of this Contract, Contractor shall provide PG&E with the following documentation: (a) a true, correct and complete copy of its MCP, which MCP is in full force and effect as of the effective date of this Contract; and (b) a completed, signed form CHP 809 Motor Carrier Certificate of Compliance (available at <https://www.chp.ca.gov/home/forms>). Contractor shall promptly provide the same documentation to PG&E each time the MCP is renewed or modified;

- (c) Contractor shall not use any Subcontractor to perform transportation services under this Contract unless: (a) the Subcontractor has a valid MCP which is in full force and effect, and (b) Contractor has first provided PG&E with the information specified in section (ii) above for each such Subcontractor; and
- (d) Contractor shall immediately cease and desist all transportation services and notify PG&E in writing if its MCP, or the MCP of any Subcontractor, or any portion of any MCP: (a) becomes invalid, including but not limited to any nonrenewal, suspension, revocation, cancellation, termination or withdrawal; or (b) is modified, transferred or otherwise changed, in which case Contractor shall promptly provide PG&E with a true, correct and complete copy of the MCP as so modified, transferred or changed.
- (e) PG&E shall have the right to cancel this Contract for cause immediately upon written notice to Contractor if: (i) Contractor fails to provide any of the foregoing documentation, or (ii) PG&E receives notice that Contractor or any Subcontractor's MCP is invalid, including but not limited to suspension, cancellation, termination, withdrawal, modification or transfer of the such MCP.

7. PAYMENTS

- 7.1 **PAYMENT TERMS:** Unless otherwise specified herein, the payment terms for this Contract are 2% 15 days Net 45. The 2% discount applies when PG&E pays the invoice within 15 days. All timelines are calculated from the date a correct invoice is received and accepted by PG&E's Accounts Payable department in San Francisco.
- 7.2 **COMPLETED WORK:** Contractor shall submit invoices for completed Work accepted by PG&E, unless otherwise agreed.
- 7.3 **INVOICE INSTRUCTIONS:** Invoices must be submitted in accordance with the service contract order and include the service contract order number. All timelines for payment of invoices run from the date a correct invoice is received by PG&E's Accounts Payable Department. All invoices submitted to and accepted by PG&E's Accounts Payable department by 6:00 PM on a business day are considered received that same day.
 - 7.3.1 **ELECTRONIC INVOICES:** Electronic invoices submitted through PG&E's electronic invoicing system and accepted by PG&E's Accounts Payable department **after** 6:00 PM may not be considered received until the next business day.
 - 7.3.2 **PAPER INVOICES:** Paper invoices must be submitted to PG&E's Accounts Payable department at the following address:

PG&E Accounts Payable
PO Box 7760
San Francisco, CA 94120-7760

INVOICES SUBMITTED TO ANY OTHER OFFICE, LOCATION OR ADDRESS, INCLUDING A LOCAL PG&E OFFICE OR THE DEPARTMENT IN CHARGE OF THE WORK, ARE **NOT** CONSIDERED RECEIVED FOR PAYMENT PURPOSES. The discount and net due date timelines for invoice payment **DO NOT BEGIN** until the receiving location has forwarded a correct invoice to PG&E's Accounts Payable department and the invoice has been received and accepted.

- 7.4 **PAYMENTS FOR CONSTRUCTION SERVICES GENERALLY:** For Contracts or CWAs that total less than \$5,000, PG&E will pay Contractor 100% of the CWA price 45 days after acceptance by PG&E of the completed Work. For Contracts that total \$5,000 or more, Contractor will be paid 90% of the total Contract price (or "not to exceed" Contract price, if such a limit is specified) after acceptance by PG&E of the completed and satisfactory Work. If the Work requires more than six weeks' time to complete, monthly progress payments will be made in the amount of 90% of the amount due for Work satisfactorily performed, in place, and accepted during the month. The remaining 10% of the total Contract price will be paid to Contractor within 45 days after the date of acceptance of the completed Work by PG&E. Each monthly

payment (except final) will be made within 45 days after receipt and approval by PG&E of Contractor's invoice covering the Work performed during the month.

- 7.4.1 LIEN RELEASES: If requested by PG&E, Contractor must furnish conditional lien releases with each progress payment for Contractor and all Subcontractors totaling the amount requested in the progress payment estimate and covering the same time period as the estimate.
- 7.4.2 LIEN RELEASE UPON FINAL PAYMENT: Prior to submitting a final invoice, Contractor must furnish lien releases for Contractor and Subcontractors covering all labor, materials, and equipment for which a lien could be filed.
- 7.4.3 WITHHOLDING FUNDS: PG&E may retain from payments due hereunder sufficient funds to (1) repair or replace Work deemed defective by PG&E, and (2) discharge delinquent accounts of Contractor for which liens on PG&E's property have been or can be filed. PG&E may at any time pay out of the funds withheld from Contractor amounts admittedly due on delinquent accounts.
- 7.4.4 FEDERAL COST PRINCIPLES AND PROCEDURES: Contractor agrees to comply with the Federal Cost Principles and Procedures as set forth in 48 Code of Federal Regulations (CFR), Chapter 1, Part 31 et seq., and 49 CFR, Part 18 or 19, as applicable to performance of the Work that is the subject of this Contract. If a subsequent audit determines payments to be unallowable, Contractor agrees to reimburse PG&E for the unallowable amounts within 10 days after receipt of PG&E's invoice.
- 7.4.5 SEGREGATION OF PRICE: Contractor shall submit a segregation of the Contract price, if requested, for each lump sum of the Proposed Form. The segregation shall itemize the estimated cost of each class of Work, together with an allowance for profit, insurance, and overhead expense, the total of which shall equal the Contract price. When approved by PG&E, the segregation shall become the basis for determining progress payments for Work performed.
- 7.4.6 CLAIMS: If Contractor claims extra compensation or time from PG&E arising out of PG&E's administration or interpretation of the Contract or other action on the part of PG&E, Contractor shall submit to PG&E a written statement supporting the claim as soon as practicable but not more than 30 days after the action or decision giving rise to the claim. Portions of Contractor's claim incurred prior to written notification to PG&E shall be considered waived and failure to submit a statement within 30 days shall constitute a waiver of the entire claim. Acceptance by Contractor of the final payment hereunder shall be deemed a waiver by Contractor of claims against PG&E.
- 7.5 EQUIPMENT RENTAL: If the Work includes rental of equipment, the following terms apply:
 - 7.5.1 PG&E will pay Contractor for the use of equipment at a rate not to exceed the equipment rental rate set forth in the Rental Rate Blue Book in effect on the date the Work is performed ("Blue Book"). The Blue Book rates shall apply regardless of ownership and any rental or other agreement, if any, which has been entered into by the Contractor for the use of said equipment. If it is deemed necessary by PG&E to use equipment not listed in the Blue Book, a suitable rental rate for such equipment will be established by PG&E. Contractor may furnish cost data which might assist PG&E in establishing the rental rate.
 - 7.5.2 Rental rates shall include the cost of fuel, oil, lubrication, supplies, small tools (less than \$1,500 in value), repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.
 - 7.5.3 Equipment shall, in the opinion of the PG&E, be in good working condition and suitable for the purpose for which the equipment is to be used. Unsuitable equipment shall be made suitable to the satisfaction of PG&E, at no expense to PG&E, or removed from the worksite.
 - 7.5.4 Manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates, unless otherwise specified. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

- 7.5.5 Individual pieces of equipment or tools having a replacement value of \$1,500 or less shall be considered to be small tools and no payment will be made for them by PG&E.
- 7.5.6 Rental time will not be reimbursed by PG&E while equipment is inoperative due to breakdowns or malfunctions.
- 7.5.7 Equipment available at the worksite and used for cost-plus Work will be paid for on an hourly rate based upon the actual hours used, including overtime, at the rates set forth in the equipment pricing schedule, not to exceed those specified in the Rental Rate Blue Book.
- 7.5.8 STANDBY TIME: If PG&E requests in writing that Contractor hold certain equipment at the worksite for cost-plus Work, compensation for standby time will be 50% of the rental rate listed for such equipment in the current edition of the Rental Rate Blue Book.
- 7.5.9 If PG&E requests Contractor to furnish special equipment not on hand at the worksite for use on cost-plus Work, PG&E will compensate Contractor for the cost of moving the equipment on and off the worksite. Compensation for rental of such equipment will be in accordance with the paragraph immediately above titled Standby Time. No other fees shall be applied to the equipment rental rates whatsoever.
- 7.5.10 A fee may be applied to the equipment rental rates as noted in Attachment 3. This fee shall not apply to equipment rental rates established by PG&E or as established by the paragraph above titled Standby Time. No other fees shall be applied to the equipment rental rates whatsoever.
- 7.6 BILLING AND PAYMENT FOR PROFESSIONAL SERVICES, TIME AND MATERIALS AND UNIT PRICE WORK: The terms of this provision shall apply to all Work performed on a time and materials or unit price basis.
- 7.6.1 INVOICE SUBMITTAL INSTRUCTIONS: Contractor shall submit invoices to PG&E in accordance with the requirements of this section and with the instructions printed in the Contract or Contract Change Order. The Contractor shall include the Contract number, and if applicable the Contract Work Authorization number, on the invoice.
- 7.6.2 MONTHLY INVOICE: Contractor shall submit a monthly invoice to PG&E for review and approval of compensation earned and reimbursable expenses incurred in the preceding calendar month. Each invoice shall be broken down by Contract tasks; for each task the invoice shall include the following information:
- (a) Status: Task description; Estimated cost to complete; Total cost incurred to date; Percentage of Work completed and date completed
 - (b) Labor: Employee name; Employee labor classification; Employee salary rate; Number of hours spent; Billing rate
 - (c) Reimbursable Expenses: Unit cost and quantity of each item of expense.
- 7.6.3 BILLING RATES AND CONFLICTS: Contractor's billing rates or fees stated in the Contract fee schedule shall not change during the term of this Contract without prior written approval by PG&E. These billing rates and fees shall be inclusive of all Contractor's overhead costs, administrative and general fees, and profit. To the extent such fee schedule, or any invoice or other billing instrument as provided for in this section contains terms and conditions which are in addition to or in conflict with the terms and conditions in this Contract, whether Specific or General, those terms and conditions in the fee schedule, invoice, or other billing instrument shall be null and void.
- (a) Overtime hours shall be billed at straight-time rates, unless otherwise approved by PG&E prior to the use of overtime, and limited to those hours for which Contractor's employee is actually compensated. If applicable, Contractor's overhead cost shall not be applied to the premium portion of the overtime cost.
 - (b) Individuals other than employees of Contractor (nonemployees) retained by Contractor, such as Subcontractors, outside consultants, or agency personnel, shall not be billed as

Contractor's employees and shall be shown separately on the invoice. Such nonemployees working in Contractor's established office under Contractor's direct supervision shall be billed to PG&E at the cost charged to Contractor multiplied by the markup noted in Attachment 3. All other nonemployees shall be billed at Contractor's direct costs.

- 7.6.4 EXPENSES: All reimbursable expenses shall be reasonable, ordinary, and necessary and shall be billed at cost. All reimbursable expenses other than those listed in this paragraph shall be authorized in writing by PG&E's authorized representative prior to expenditure by the Contractor; any expenses not so approved by PG&E shall not be reimbursed.
- (a) Overhead costs will not be reimbursed as expenses. Miscellaneous costs, such as routine telephone communications, routine copying, electronic mail, facsimile transmissions, computer time and use of in-house technical software are considered to be part of Contractor's overhead costs.
- 7.6.5 TRAVEL TIME AND COSTS: All air travel costs, whether within or outside of the United States, will be reimbursed only on a coach fare basis and all rental car costs will be reimbursed only on a subcompact rate basis. Travel time to and from the Work site shall be at Contractor's expense.
- 7.6.6 MILEAGE AND USE OF PERSONAL CAR: In the event Contractor or its personnel use a personal car in the performance of Work under the Contract and such use is included as a reimbursable expense, normal commuting such as trips from home to first business stop and from the last business stop to home represents personal use of car and shall not be reimbursed. All other reimbursable mileage shall be at the current IRS rate.
- 7.6.7 SUPPORTING DOCUMENTATION: For each expense item over \$100, supporting data and documentation shall be furnished with the invoice. Copies of detailed expense reports to support travel costs shall be attached to the invoice. Although travel receipts need not be attached, Contractor shall retain them for the term of the audit period. Each invoice shall be assembled such that attached supporting documentation shall be placed in the order listed in the invoice, and each item of expense chargeable to PG&E shall be highlighted or clearly delineated.
- 7.6.8 INVOICE DEFICIENCIES: Should PG&E determine that Contractor's invoice does not meet the invoicing requirements of this Contract, PG&E will notify Contractor of the deficiencies or return the invoice to Contractor with noted deficiencies. Contractor shall provide to PG&E such documents or information correcting such deficiencies, or for invoices returned to Contractor, Contractor shall resubmit a corrected invoice.
- 7.6.9 FINAL INVOICE: The final invoice shall be marked "FINAL" and must be received by PG&E within sixty (60) calendar days after completion of the Work. PG&E will not be liable for payment of any late invoices that are received by PG&E beyond the 60 days.
- 7.6.10 UNIT PRICE BASIS: When invoices include Work performed on a unit price basis, Contractor shall attach to the invoice a list stating the unit price item numbers, unit prices, quantities, dollar amounts and other information as required to identify the Work.
- 7.6.11 PG&E PAYMENT: Payment by PG&E to Contractor for Work performed on a time and materials or unit price basis will be monthly, in the full amount due for Work performed less any negotiated percentage withholding, computed in accordance with the terms of the Contract, and satisfactorily completed during each month including reimbursable expenses, if any. Payment of any remaining balance of the amount due will occur at the end of the Contract after all Work is satisfactorily completed.

8. ADDITIONAL WORK OR CHANGES IN WORK

- 8.1 CONTRACT CHANGE ORDERS: PG&E may require Contractor to perform additional work of a nature similar or related to the Work under the Contract or may require changes or reductions in the Work or in the provisions governing the Work. Additional work or changes shall be performed by Contractor only when authorized in writing. Authorization for payment will be by Change Order.

8.2 PROFESSIONAL SERVICES

- 8.2.1 PROCEDURE FOR ADDITIONAL WORK: BEFORE PROCEEDING WITH ANY PROFESSIONAL SERVICES WORK INVOLVING POSSIBLE CLAIMS FOR EXTRA COMPENSATION NOT SPECIFIED IN THE CONTRACT, CONTRACTOR SHALL SUBMIT IN WRITING TO PG&E A DETAILED ESTIMATE OF THE COST FOR SUCH WORK. Contractor shall provide PG&E with a detailed breakdown and estimated cost of such anticipated Contract Work, including extensions and Change Orders, as follows: (i) Description of work to be performed including detailed breakdown by identifiable tasks; (ii) estimated cost of each task; and (iii) expected date of completion of each task.
- 8.2.2 APPROVAL NEEDED FOR ADDITIONAL WORK: Contractor shall not proceed with any such additional Professional Services Work prior to receiving written authorization or a Change Order issued to Contractor by PG&E. CONTRACTOR AGREES THAT ALL COSTS FOR ANY SUCH MODIFICATION OR CHANGE THAT IS PERFORMED BY CONTRACTOR WITHOUT PG&E'S PRIOR WRITTEN APPROVAL SHALL BE AT CONTRACTOR'S SOLE RISK AND EXPENSE.
- 8.2.3 PG&E CHANGES TO WORK: PG&E reserves the right to make such changes in Work, specifications, or level of effort, as may be necessary or desirable and any difference in Contract price resulting from such changes shall be approved in writing by PG&E before the Work is begun.

8.3 CONSTRUCTION

- 8.3.1 COMPENSATION: Compensation to Contractor for any increase in the amount of Work due to additions or changes shall, at PG&E's option, be based on Contract unit prices or on a cost-plus basis based on Contractor's additional costs to perform the increase in Work. If Work is performed on a cost-plus basis, compensation will be an amount equal to the total of items in each of the following subparagraphs, as applicable:
- (a) Wages and salaries, including payroll taxes, vacation, holiday, sick leave allowance, and other fringe benefits of Contractor's employees, and its job foreman, engaged in performing the Work. Wages or expenses of any superintendent, representative in charge, or field office personnel are excluded.
 - (b) Materials and supplies actually consumed in the Work, including sales or use taxes thereon, and the transportation thereof, at actual cost, less trade and cash discounts and less the fair value of materials and supplies salvaged and retained by Contractor.
 - (c) Pro rata amounts of premiums for (a) Worker's Compensation Insurance, and (b) Bodily Injury and Property Damage Insurance up to limits of \$1,000,000 for one occurrence. Premiums for other insurance shall not be separately reimbursable.
 - (d) Incidental direct costs to Contractor arising directly from performance of the Work, provided they are approved in writing by PG&E.
 - (e) A fee equal to the percentage stated in Contractor's Proposal of the total of paragraphs (i) thorough (iv) including profit, supervision, field office personnel, overhead, rental charges for use of tools and equipment valued at less than \$1,500 each, and other general and indirect expense.
 - (f) Rental charges for use of Contractor's equipment valued at \$1,500 or more each, at the rates submitted by Contractor in its Proposal. Rates shall include fuel, maintenance, operating labor and other costs, unless otherwise specified. For rates not included in the rates submitted in Contractor's Proposal, reimbursement shall be at rates not in excess of the rates set forth in the current edition of the "Rental Rate Blue Book for Construction Equipment".
 - (g) Cost of transportation to the worksite and from the worksite to an agreed destination, including loading and unloading, or equipment not self-propelled or readily movable, to

the extent that payments have not been reimbursed directly or indirectly under other items of the Contract.

- (h) For approved additional Work performed by a Subcontractor, including Subcontracts for rental of equipment valued at \$1,500 or more each, Contractor will be paid the Subcontract amount plus the appropriate fee as noted in Attachment 3:
 - (i) This fee shall include Contractor's profit and expenses incident to administration of the Subcontract. However, the fee shall not apply to rental of equipment from subsidiaries of Contractor, from its partners or co-venturers, or from their subsidiaries.
 - (j) Repair and replacement of any portion of the cost-plus Work destroyed or damaged due to causes beyond Contractor's control, including materials and equipment delivered to the Work site for installation, which are not covered by insurance.
- 8.3.2 SUBCONTRACTOR'S FEES: Bidder shall state in its Proposal the percentage fees applicable to paragraphs 7.3.1 (i) through (iv) that will be charged by its Subcontractors for cost-plus Work. The fee for a Subcontractor not listed in the Proposal shall not exceed that quoted by Contractor for paragraph 7.3.1 (v) Subcontracts shall be subject to PG&E's approval.
- 8.3.3 ITEMS EXCLUDED: Compensation to Contractor under the preceding cost-plus items shall not include the following:
- (a) Amount of a penalty, judgment, settlement, or other expense paid or incurred by Contractor as a result of Contractor's actual or alleged violation of a contract, law, rule, or regulation, except to the extent that penalty, judgment, settlement, or other expense represents wages or taxes otherwise reimbursable hereunder.
 - (b) Amounts paid by Contractor for repair or replacement of defective Work or costs of material wasted due to careless workmanship or costs of work performed that, in opinion of PG&E, is not necessary for the performance of the Work.
- 8.3.4 DECREASE IN WORK: At PG&E's option, credit to PG&E for decrease in the Work will be based on agreed prices equal to Contractor's reduced costs or on the basis of Contract unit prices.
- 8.3.5 RENTAL RATES: Rental rates shall be submitted with Bidder's Proposal for use of its equipment valued at \$1,500 or more each.
- 8.3.6 LUMP-SUM AND UNIT PRICE EXTRA WORK: For additional Work or changes performed on a lump-sum or agreed-price basis, Contractor shall submit for approval by PG&E, if required, a complete price breakdown of amounts and fees based on the actual, additional costs to be incurred. The breakdown shall conform to the cost breakdown and include the fees set forth in the section above titled "Compensation," paragraphs 7.3.1 (i) through (ix), and paragraph 7.3.2, "Subcontractor's Fees," and the fees quoted in Contractor's Proposal. Extra Work performed on a unit price basis shall be computed on the basis of the Contract unit prices.
- 8.3.7 WORK SUBCONTRACTED ON COST-PLUS BASIS: Extra Work authorized to be Subcontracted on a cost-plus basis shall be performed in accordance with the provisions of this Article. Contractor shall negotiate Subcontracts directly, and Subcontractor shall not Subcontract any part of the Work.
- 8.3.8 INVOICE SUPPORT
- (a) Contractor must complete and submit to PG&E a Daily Statement of Labor, Material, and Equipment Sheet ("**LM&E Sheet**"), attached hereto as **Exhibit LME** for all Work performed on a cost plus basis. Contractor may use its own form in place of the PG&E LM&E Sheet as long as it contains (a) all the same information as is to be reported on PG&E's LM&E Sheet and (b) the information clearly matches the categories of information found on PG&E's LM&E Sheet. Contractor's representative shall prepare the LM&E Sheet daily, providing sufficient detail of Work performed, including labor employed by Contractor and others performing Work, materials drawn from Contractor's

stock, use of Contractor's equipment and rental of equipment from others by Contractor. PG&E shall approve the LM&E Sheet daily and retain a copy of the approved LM&E Sheet for comparison to Contractor's actual billing. PG&E shall have the right to inspect and sign the delivery or shipping documents for all tools, equipment, and materials charged to or credited out of cost-plus Work as they are received or removed.

- (b) Contractor's invoice support shall include a copy of the PG&E approved LM&E Sheet, receipted bills for materials, subcontracted Work and rented tools and equipment. When requested by PG&E, Contractor shall submit certified copies of payrolls covering labor employed by Contractor and others performing Work. Satisfactory evidence shall also be submitted to verify materials drawn from Contractor's stock, use of Contractor's equipment and other miscellaneous items of cost not otherwise verified. PG&E shall have the option of auditing the Contractor's records for cost-plus Work.

9. WARRANTIES AND GUARANTEES

- 9.1 **PERSONNEL:** For all Work, Contractor shall use appropriate numbers of personnel with suitable training, education, experience and skill to perform the Work in accordance with the Contract requirements.

9.2 PROFESSIONAL SERVICES

- 9.2.1 Contractor warrants to PG&E that the Professional Services shall be performed in accordance with PG&E standards or, in the absence of applicable PG&E standards, with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally-accepted professional engineering standards prevailing at the time the Work is performed so as to ensure that the Work performed is correct and appropriate for the purposes contemplated in this Contract and related specifications.
- 9.2.2 Contractor shall perform Professional Services in strict accordance with the Scope of Work agreed upon and set forth in the Contract. As applicable, Contractor warrants that the results documented in its final report to PG&E accurately reflect the data recorded during the survey within the specifications for Contractor's tools.
- 9.2.3 **DOCUMENTATION:** The final as-built drawings and documentation shall be accurate and complete, comply in all material respects with the description in the Contract, and completely and accurately reflect, in all material respects, the condition of the Work as of final completion.
- 9.2.4 If within one (1) year after delivery of the final report or any other deliverable, PG&E notifies Contractor of any deficiency, Contractor shall at its own expense promptly investigate and determine the source of the deficiency (including any inaccuracy or other deficiency in the final as-built drawings and documentation), correct any defective design which resulted therefrom, issue corrected drawings and documentation, replace all equipment and materials directly associated with the defective design, and re-perform all other Work necessary to remedy the deficiency. In addition, Contractor shall compensate PG&E for its documented losses and expenses directly attributable to said deficiency; provided, however, that in no event shall Contractor's liability for such losses and expenses exceed the total amount payable under the Contract or, if applicable, the CWA under which the Work was performed. This is not an exclusive remedy. PG&E's exercise of its rights under this section shall not waive any rights or remedies PG&E may have under this Contract in law or equity.

9.3 CONSTRUCTION SERVICES

- 9.3.1 **WORKMANSHIP:** The construction, installation and field services included in the Work shall be performed in compliance with the requirements of this Contract, including but not limited to the standard of performances set forth herein. Contractor will perform and complete the Work in a professional and workmanlike manner. The completed Work shall perform its intended functions as a complete, integrated operating system as described or implied in the Contract.
- 9.3.2 **GUARANTEES:** In addition to the guarantees provided under this Contract, or implied in fact or in law, Contractor shall leave the entire project in satisfactory working order and repair or replace at its expense any part of the Work that develops defects due to faulty design, engineering,

workmanship, materials, or any failure to comply with or perform in accordance with the Contract requirements within a period of one year after the Work is accepted by PG&E provided, however, that the warranty period for trench materials and workmanship is two (2) years after the Work is completed and accepted by PG&E; in each case, unless a longer warranty period is specified in the Contract. Contractor shall promptly repair or replace, at Contractor's expense, other Work, equipment or property damaged as the result of the defects, or as a result of the repairing thereof, and hold PG&E harmless from PG&E's repair expenses. The warranty period for a repair or replacement shall be one year from the date of acceptance by PG&E of the repair or replacement.

- 9.3.3 EQUIPMENT WARRANTY: Equipment furnished by Contractor, if any, shall be of the kind and quality described in this Contract, free of defects in design, engineering, workmanship, and materials. The equipment shall comply with the Contract requirements, shall perform in the manner set forth in the Contract and shall be fit for its intended purpose. The warranty period shall begin when the equipment is placed in operation and extend for one (1) year. Contractor's repair and replacement obligations shall be the same as those set forth in the paragraph above titled "Guarantees."
- 9.3.4 REPAIRS BY PG&E: If PG&E determines that it is impractical for the Contractor to make the repairs or replacements, PG&E reserves the right to undertake or have others undertake the repairs or replacements at Contractor's expense. PG&E's exercise of its rights under this Paragraph shall not waive any rights or remedies PG&E may have under this Contract in law or equity.

10. CONFIDENTIALITY AND DATA SECURITY

- 10.1 CONFIDENTIALITY: In the course of performing the Work, Contractor may have access to confidential commercial or personal information including, but not limited to, Customer energy usage or billing information: PG&E Data as defined in **Exhibit DATA 1**, Confidentiality and Data Security; information on California residents or PG&E Customers; information on PG&E employees and operations, information on technological, ratemaking, legislative and personnel matters and practices; and reports, strategies, analyses, specifications, records, software, data, computer models, and related documentation of PG&E, its parent company, subsidiaries, affiliates, or third parties (collectively, "**Confidential Information**"). Contractor agrees to use such Confidential Information strictly for the Work under this Contract, to restrict access to Confidential Information to those of its personnel with a need to know the information in order to perform the Work, and not to disclose any such Confidential Information or otherwise make it available to any other person or entity, including but not limited to any affiliate of PG&E that produces energy or energy-related products or services, without the prior written approval of PG&E. Contractor shall implement and maintain reasonable security procedures and practices appropriate to the nature of the information but in no case less than reasonable measures, to protect any personal information or Confidential Information from unauthorized access, destruction, use, modification, or disclosure. The requirements of **Exhibit DATA 1**, Confidentiality and Data Security, and **Exhibit DATA 1A**, Non-Disclosure and Use of Information Agreement, attached, are hereby incorporated into the Contract. Contractor shall ensure that each of its employees and Subcontractors who will receive Confidential Information under this Contract first executes a copy of **Exhibit DATA 1A**.
- 10.2 SECURITY: Contractor hereby represents, warrants, and covenants to PG&E that the Work, including any hardware, software, firmware, equipment and other deliverables, does not and will not contain or make available any Malicious Code. Without limiting any of PG&E's rights and remedies with respect thereto (all of which are expressly reserved), if Contractor detects or is made aware of Malicious Code in the Work, Contractor shall notify PG&E immediately, remove such Malicious Code, remediate the effects of such Malicious Code, and restore any lost or corrupt data if applicable.
- 10.3 CYBER PROTECTION FOR PROGRAMMABLE DEVICES: The following requirements apply to any deliverables under this Contract containing software, firmware, microcode or other programmable features. These requirements apply on a continuing basis for the longer of five years and the expected service life of the deliverables as disclosed by Contractor in its product descriptions (the "**Service Life**"):

- 10.3.1 **MALICIOUS CODE:** Contractor hereby represents, warrants, and covenants to PG&E that upon delivery to PG&E the deliverables will not contain or make available any Malicious Code. Without limiting any of PG&E's rights and remedies with respect thereto (all of which are expressly reserved), if Contractor detects or is made aware of Malicious Code in the deliverables during the Service Life, Contractor shall immediately notify PG&E. If the deliverables are not yet in use by PG&E, Contractor shall remove such Malicious Code, remediate its effects and certify to PG&E that the Malicious Code has been removed. If the deliverables are in use by PG&E, Contractor shall assist PG&E to remove the Malicious Code in accordance with the Section below titled "Security Updates and Support."
- 10.3.2 **CYBERSECURITY SPECIFICATIONS:** Contractor hereby represents, warrants, and covenants that the deliverables comply with the cybersecurity features and functions, if any, described in the associated specifications.
- 10.3.3 **SECURITY VULNERABILITIES AND TESTS:** Contractor acknowledges that the deliverables may be subject to security testing by PG&E or its security testing consultants before the deliverables are accepted by PG&E as well as subsequently, at any time during their Service Life. If the deliverables are integrated with products supplied by third parties, the third party suppliers may also be involved in the testing process. Contractor shall fully cooperate in the conduct of such tests. If requested by PG&E, such cooperation shall include the following: (i) providing source code and other program documentation (which PG&E shall use solely for testing purposes), and (ii) providing a representative with suitable technical expertise to participate in the tests. The conduct and results of the tests, including any security vulnerabilities that are identified in the course of the tests, shall be PG&E Confidential Information. Any security vulnerabilities that are identified in such tests shall be resolved in accordance with the following Section, concerning Security Updates and Support.
- 10.3.4 **SECURITY UPDATES AND SUPPORT:** Contractor shall maintain a technical support line with access to PG&E so that any security-related issues can be addressed promptly. Contractor shall notify PG&E without delay if Contractor detects or is made aware of any Malicious Code or security vulnerability in the deliverables during their Service Life. If Malicious Code or security vulnerability is identified during the Service Life, Contractor shall provide an update or revision to the deliverables to remove the Malicious Code and/or cure the vulnerability (a "Security Patch") as soon as possible and at no charge to PG&E. Contractor shall assist PG&E to implement the Security Patch if requested by PG&E and shall reimburse PG&E for the cost of implementing the Security Patch.

11. INDEMNIFICATION, WITHHOLDING, AND LIMITATION OF LIABILITY

11.1 INDEMNIFICATION

- 11.1.1 To the maximum extent allowed by law, Contractor shall indemnify, hold harmless and defend PG&E, its affiliates, subsidiaries, parent company, officers, managers, directors, agents, and employees, from and against all claims, demands, losses, damages, costs, expenses, and liability (legal, contractual, or otherwise), which arise from or are in any way connected with any: (i) injury to or death of persons, including but not limited to employees of PG&E or Contractor; (ii) injury to property or other interests of PG&E, Contractor, or any third party; (iii) violation of a local, state, or federal common law, statute or regulation, including but not limited to environmental laws or regulations; (iv) strict liability imposed by any law or regulation; (v) delay or failure to pay any Subcontractor, including but not limited to any demands for payment, invoices, or liens; or (vi) delay or failure to pay any employees, laborers, or other personnel of Contractor or any Subcontractor the compensation, monies, wages, benefits or other payment due or allegedly due; so long as such injury, violation, strict liability, or payment (as set forth in (i) - (vi) above) arises from, pertains to, or relates to Contractor's negligence, recklessness or willful misconduct.
- 11.1.2 Contractor acknowledges that any claims, demands, losses, damages, costs, expenses, and liability that arise from or are in any way connected with the release or spill of any legally designated Hazardous Material or Hazardous Waste and arise from, pertains to, or relates to

Contractor's negligence, recklessness, or willful misconduct under this Contract, are expressly within the scope of this indemnity. Likewise, the costs, expenses, and legal liability for environmental investigations, monitoring, containment, abatement, removal, repair, cleanup, restoration, remedial work, penalties, and fines arising from strict liability or the violation of any local, state, or federal law or regulation, attorney's fees, disbursements, and other response costs incurred as a result of such releases or spills are expressly within the scope of this indemnity.

11.1.3 To the maximum extent allowed by law, Contractor shall, on PG&E's request, defend any action, claim, or suit asserting a claim which might be covered by this indemnity using counsel chosen by or acceptable to PG&E. Contractor shall pay all costs and expenses that may be incurred by PG&E in enforcing this indemnity, including reasonable attorney's fees.

11.2 INFRINGEMENT PROTECTION: Contractor represents to PG&E that the Work to be performed, and the materials prepared or used, under this Contract will not infringe upon the copyright, patent or license, or otherwise violate the proprietary rights, including trade secret rights, of any person or entity. Contractor agrees to indemnify and hold PG&E, its affiliates, subsidiaries, parent company, officers, managers, directors, agents, and employees, harmless from any suit, demand or claim alleging any such infringement or violation. In addition to the foregoing, if there is such a claim, Contractor agrees at PG&E's option to either procure for PG&E the right to continue using the material, replace the material with non-infringing material or modify it so it becomes non-infringing, or remove the item and refund the applicable portion of the Contract price; provided, however that the replaced or modified material shall be equal to that contracted for hereunder and satisfactory to PG&E. Contractor further agrees to pay any judgment or reasonable settlement offer resulting from a suit, demand or claim, and pay any reasonable attorney's fees incurred by PG&E in defense against such suit.

11.3 WITHHOLDING: PG&E may withhold from the final payment due Contractor hereunder such amounts as, in PG&E's opinion, are sufficient to provide security against all loss, damage, expense, and liability covered by the foregoing indemnity provision for damage to property.

11.4 TAX WITHHOLDING: Contractor represents and warrants that it will withhold all taxes, if any, which are required to be withheld under applicable law with respect to payments to persons hired by Contractor who perform services for PG&E. Contractor shall indemnify and hold PG&E harmless, on an after-tax basis, for any liability incurred by PG&E as a result of Contractor's failure to institute any such required withholding.

11.5 LIMITATION OF LIABILITY: TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY UNDER ANY CIRCUMSTANCES, WHETHER IN CONTRACT, TORT, EQUITY, OR OTHERWISE, FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, PUNITIVE, OR EXEMPLARY DAMAGES, EVEN IF SUCH DAMAGES ARE FORESEEABLE, AND REGARDLESS OF WHETHER OR NOT SAID PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR UNRECOVERED OVERHEAD AND, COMMITMENTS TO THIRD PARTIES, SUCH AS SUBCONTRACTS, RENTAL OR LEASE AGREEMENT(S), AND PERSONAL SERVICES CONTRACTS.

12. INSURANCE REQUIREMENTS

Contractor shall maintain the following insurance coverage. Contractor is also responsible for its Subcontractors maintaining sufficient limits of the same insurance coverage.

12.1 WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY

- 12.1.1 Workers' Compensation insurance or self-insurance indicating compliance with any applicable labor codes, acts, laws or statutes, state or federal, where Contractor performs Work.
- 12.1.2 Employers' Liability insurance shall not be less than \$1,000,000 for injury or death each accident.

12.2 COMMERCIAL GENERAL LIABILITY

- 12.2.1 Coverage shall be at least as broad as the Insurance Services Office (ISO) Commercial General Liability Coverage "occurrence" form, with no coverage deletions.

- 12.2.2 The limit shall not be less than \$10,000,000 each occurrence for bodily injury, property damage and personal injury.
- 12.2.3 Coverage shall: (a) By "Additional Insured" endorsement add as insureds PG&E, its affiliates, subsidiaries, parent company, directors, officers, agents and employees with respect to liability arising out of or connected with the Work performed by or for the Contractor (ISO Form CG2010 or equivalent is preferred). If the Commercial General Liability policy includes a "blanket endorsement by contract," the following language added to the certificate of insurance will satisfy PG&E's additional insured requirement: "PG&E, its affiliates, subsidiaries, parent company, directors, officers, agents and employees with respect to liability arising out of the work performed by or for the Contractor are additional insureds under a blanket endorsement"; and (b) Be endorsed to specify that the Contractor's insurance is primary and that any insurance or self-insurance maintained by PG&E shall not contribute with it.

12.3 BUSINESS AUTO

- 12.3.1 Coverage shall be at least as broad as the Insurance Services Office (ISO) Business Auto Coverage form covering Automobile Liability, code 1 "any auto."
- 12.3.2 The limit shall not be less than \$5,000,000 each accident for bodily injury and property damage.

12.4 POLLUTION LIABILITY

- 12.4.1 Coverage for bodily injury, property damage, including clean-up costs and defense costs resulting from sudden and non-sudden pollution conditions including the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any watercourse or body of water.
- 12.4.2 The limit shall not be less than \$5,000,000 each occurrence for bodily injury and property damage.

12.5 PROFESSIONAL LIABILITY INSURANCE

- 12.5.1 Errors and Omissions Liability insurance appropriate to the Contractor's profession. Coverage shall be for a professional error, act or omission arising out of the scope of services shown in the Contract.
- 12.5.2 The limit shall not be less than \$5,000,000 each claim.

12.6 CYBER SECURITY AND PRIVACY LIABILITY INSURANCE.

- 12.6.1 Contractor shall obtain and maintain cyber risks insurance providing coverage for at least the following perils and losses: (a) unauthorized use of or access to a computer system containing or giving access to PG&E confidential information; (b) defense of any regulatory action involving a breach of privacy in connection with PG&E confidential information; (c) failure to protect PG&E confidential information from disclosure; and (d) costs of notifying affected individuals and providing credit monitoring for up to one year, whether or not required by applicable law.
- 12.6.2 The policy(s) shall have limits of liability of at least \$2,000,000 per occurrence and \$5,000,000 in the aggregate. If any deductible is applicable, such deductible shall not exceed \$100,000, unless such increased deductible or retention is approved in advance by PG&E in writing.
- 12.6.3 PG&E, its affiliates, subsidiaries and parent company, and PG&E's directors, officers, agents and employees shall be named as additional insureds under this policy. If the policy includes a "blanket endorsement by contract," the following language added to the certificate of insurance will satisfy PG&E's additional insured requirement: "PG&E, its affiliates, subsidiaries, and parent company, and PG&E's directors, officers, agents and employees with respect to liability arising out of the work performed by or for the Contractor are additional insureds under a blanket endorsement."

12.7 DOCUMENTATION

- 12.7.1 Contractor shall have all insurance in place before beginning any Work. Upon request, Contractor shall furnish PG&E with certificates of insurance, declaration pages, and endorsements of all required insurance. All such documentation shall be signed and submitted by a person authorized by that insurer to issue certificates of insurance and endorsements on its behalf.
- 12.7.2 The insurer shall deliver notification to PG&E in accordance with the policy provisions if any of the above-described policies are cancelled before the stated expiration date.
- 12.7.3 All policies or binders with respect to insurance maintained shall (i) waive any right of subrogation of the insurers hereunder against PG&E, its directors, officers, employees, agents, parent company, affiliates and subsidiaries; and (ii) with respect to any additional insured, provide that such insurance will not be invalidated by any action or inaction of each insured and will insure each such insured regardless of any breach or violation of any warranty, declaration or condition contained in such insurance by the primary named insured.
- 12.7.4 PG&E may inspect the original policies or require complete certified copies at any time.
- 12.7.5 The minimum liability insurance requirements established in this Contract are not a representation by PG&E that the insurance limits are sufficient, nor do these requirements in any way limit Contractor's liability under this Contract.
- 12.7.6 Upon request, Contractor shall furnish PG&E the same evidence of insurance for its Subcontractors as PG&E requires of Contractor.

13. CONTRACTOR'S LABOR RELATIONS; PERSONNEL REQUIREMENTS

- 13.1 **GENERAL:** Contractor shall promptly notify PG&E in writing of any labor dispute or anticipated labor dispute which may affect the time, performance or cost of the Work.
- 13.2 **STRIKE:** In the event of a labor dispute or strike by Contractor's or its Subcontractor's employees which threatens the progress or cost of the Work or PG&E's labor relations, or which disrupts PG&E's operations, or results in a secondary boycott at PG&E facilities, PG&E reserves the right to restrict additional hiring of Contractor's employees, to suspend or discontinue the Work of Contractor and any Subcontractor, or terminate the Contract. This Paragraph shall be applicable whether or not Contractor or any Subcontractor is directly involved in a labor dispute.
- 13.3 **CONTRACTOR PERFORMING IBEW REPRESENTED WORK:**
 - 13.3.1 The provisions of this section shall apply if Contractor is assigned Work that is normally performed by PG&E employees represented by the International Brotherhood of Electrical Workers (IBEW), Local 1245.
 - 13.3.2 If PG&E identifies any Work hereunder as construction work normally and historically performed by IBEW-represented PG&E employees in one of the following departments, then such construction Work must only be performed by a contractor who is signatory to an agreement with IBEW Local 1245 that covers the identified Work: Electric Transmission and Distribution (T&D), Gas T&D, or Substation Departments (collectively, the "Identified Departments"). Contractor shall not subcontract such construction Work to a non-signatory contractor or to a contractor who is signatory to a union other than IBEW Local 1245, unless Contractor has requested and received the prior written approval of PG&E, which approval may be contingent upon, among other things, receipt of any necessary third party approvals. However, the foregoing requirements do not apply to (i) maintenance work normally and historically performed by IBEW-represented PG&E employees in the Identified Departments or (ii) construction and maintenance work normally performed by IBEW-represented PG&E employees in all other PG&E departments (collectively, "Other Work"). For work PG&E identifies as Other Work, Contractor shall pay its personnel wages which meet or exceed Prevailing Wages. For purposes of this provision, Prevailing Wages shall be as defined by California Labor Code Part 7, Chapter 1, Article 2, Section 1770, 1773, and 1773.1.

13.3.3 At PG&E's request, Contractor shall provide PG&E a certified copy of its payroll, including benefits, broken out by PG&E department for all Work that is subject to this Section.

13.3.4 All requirements of this Section shall extend to Subcontractors.

13.4 CONTRACTOR'S LABOR RELATIONS

13.4.1 GENERAL: Contractor shall promptly notify PG&E in writing of any labor dispute or anticipated labor dispute which may affect the time, performance or cost of the Work.

13.4.2 LOCAL BARGAINING: In addition to Contractor's legal obligations under the Labor-Management Relations Act (LMRA), if Contractor is a subscriber to a multi-employer bargaining association or group, Contractor shall, if PG&E directs, participate to the fullest extent in the collective bargaining of that group with any labor organizations claiming jurisdiction over any portion of the Work.

13.4.3 INTERIM AGREEMENTS: Contractor shall not make interim agreements with labor unions during contract bargaining designed to avoid strikes sanctioned by an international union or by a local building trades council or engage in other activities which might undermine management efforts at the bargaining table.

13.4.4 STRIKE: In the event of a labor dispute or strike by Contractor's or its Subcontractor's employees which threatens the progress or cost of the Work or PG&E's labor relations, or which disrupts PG&E's operations, or results in a secondary boycott at PG&E facilities, PG&E reserves the right to restrict additional hiring of Contractor's employees, to suspend or discontinue the Work of Contractor and any Subcontractor, or terminate the Contract. This Paragraph shall be applicable whether or not Contractor or any Subcontractor is directly involved in a labor dispute.

13.4.5 EXISTING UNION CONTRACTS: Contractor shall not make labor agreements with any local construction trade union affecting the performance of the Work or its cost to PG&E, independent of or in conflict with agreements in effect between the local contractors' association and the union, without first obtaining written approval from PG&E.

13.4.6 NATIONAL AGREEMENTS: Contractor shall, within 15 days after award of Contract, supply PG&E with copies of national agreements to which Contractor is a party. No later than five (5) days before the expiration of any local agreement which may affect the Work, Contractor shall meet with PG&E for the purpose of discussing the appropriate course of action.

13.4.7 JURISDICTIONAL DISPUTES: Contractor and/or Subcontractor shall take steps to resolve violations of collective bargaining agreements and jurisdictional disputes, including without limitation the filing of appropriate process with any court or administrative agency having jurisdiction to settle, enjoin or to award damages resulting from violations of collective bargaining agreements or from jurisdictional disputes.

13.4.8 LABOR SUPPLY: Contractor shall provide a sufficient number of skilled workers to fulfill the requirements of the Specification from whatever sources available, including nonunion sources.

13.4.9 APPRENTICES: It is important to PG&E that the Work be performed in the most economical manner consistent with the Specification requirements. It is also in PG&E's best interest to have an adequate number of trained workers within its service area to perform construction work that may be required.

- (a) The following is applicable to union Contractors only: Contractor shall actively participate in union apprentice programs and exert its best effort to maintain the maximum complement of apprentices in the field work force as permitted by the local collective bargaining agreements. Contractor shall employ during the performance of this Contract the number of apprentices or trainees, or both, in each occupation, called for by each applicable labor agreement; shall take whatever steps may be necessary to assure that twenty-five percent (25%) of the apprentices or trainees in each occupation are in their first year of training; and shall agree to maintain and make available for inspection, upon

PG&E's request, Contractor's records on employment of apprentices, trainees, and journeymen, in each occupation.

- 13.4.10 **USE OF PREFABRICATED MATERIAL:** Contractor shall install prefabricated or preassembled equipment where specified or purchased by PG&E, or otherwise where it is deemed to be the most economical alternative whether or not fabricated in a union shop and without necessary change or rework.

13.5 PERSONNEL REQUIREMENTS

- 13.5.1 **QUALIFIED EMPLOYEE:** Contractor shall employ personnel qualified to perform the Work.

13.5.2 REPLACEMENT OF PERSONNEL:

- (a) **PG&E REQUEST:** If PG&E finds any of Contractor's personnel to be unsatisfactory, Contractor shall replace the individual(s) within 24 hours of notification. For the avoidance of doubt, this provision addresses only the assignment of personnel to PG&E jobs; it does not require the Contractor to terminate the employment of any individuals replaced hereunder, nor does PG&E endorse or approve, either expressly or impliedly, Contractor's termination of any such individuals.
- (b) **BY CONTRACTOR:** Contractor acknowledges that if any personnel initially assigned by Contractor to perform Work under this Contract are removed, replaced or reassigned by Contractor, such removal, replacement, or reassignment may result in serious harm and costs to PG&E. Contractor agrees not to remove, replace or reassign such individuals without the prior approval of PG&E. Such approval shall not be unreasonably withheld or delayed. Contractor will make reasonable efforts to maintain continuity in its staffing and will provide PG&E with ample notification if any such changes are made. Contractor agrees not to charge PG&E for the time spent in familiarizing replacement personnel with the Work.

- 13.5.3 **FRAUD:** Contractor shall notify PG&E in writing immediately (but no later than 24 hours following discovery) if Contractor discovers that any of its employees has or may have engaged in any falsification or misrepresentation concerning the Work, including but not limited to falsely documenting Work as performed when it was not in fact performed or submitting false documentation that results in fraudulent billing to PG&E. Contractor's notice shall describe the action Contractor has taken regarding this employee as well as the action Contractor has taken or will take to ensure that other employees will not falsify documentation in the future. If, in PG&E's sole opinion, the action taken by Contractor is inadequate, PG&E may take additional steps up to and including cancellation of the Contract for cause.

- 13.5.4 **EMPLOYEE DATA:** If requested, the Contractor shall furnish PG&E the following information on each employee after award of the Contract and prior to starting Work: full name, address, date of birth, employee number, and PG&E work location.

- 13.5.5 **NEW EMPLOYEES:** If required by PG&E, Contractor shall advise PG&E of temporary or permanent changes in personnel and shall provide the information required under the immediately preceding section above for such additional employees.

- 13.5.6 **EMPLOYEE IDENTIFICATION:** If required by PG&E, Contractor's and Subcontractor's employees while on the premises shall wear a photo identification badge with photo and name clearly visible. Badges are to be furnished by and at Contractor's expense.

- 13.5.7 **SIGN-IN:** If required by PG&E, upon entering or leaving PG&E's Work site, Contractor, its employees, and Subcontractors shall sign a log provided by PG&E.

- 13.5.8 **REPORTING:** In accordance with Section 7912 of the California Public Utilities Code, Contractor agrees to report annually to PG&E the number of California residents employed by Contractor, calculated on a full-time or full-time equivalent basis, who are personally providing services to PG&E.

13.6 WORKFORCE AGREEMENT PROVISIONS**13.6.1 CONTRACTOR'S RESPONSIBILITY FOR ITS PERSONNEL**

- (a) Contractor's personnel shall at all times be employees of Contractor and not of PG&E. PG&E's obligations under this Contract shall not be interpreted to imply any obligations other than those stated herein, and no employment or promise of employment, or any obligations of an employer or rights of an employee, are implied hereunder. As such, Contractor's personnel shall not be entitled to any benefits accorded to PG&E's employees including, without limitation, worker's compensation, disability insurance, 401k plan, pension, vacation or sick pay.
- (b) Contractor is solely responsible for all payment and other remuneration due to Contractor's personnel. Contractor shall provide all disability, worker's compensation or other insurance, and human resource functions as required by applicable federal, state and local laws and regulations.
- (c) Contractor shall obtain written individual employment agreements from all Contractor's personnel prior to their assignment to PG&E. At a minimum, employment agreements must include acknowledgement by Contractor's personnel of the following:
 - (i) Contractor is their employer for all purposes,
 - (ii) Contractor, not PG&E, makes all hiring, firing, promotion, demotion, compensation, and employee benefits determinations,
 - (iii) PG&E is not the employer for any purpose, and
 - (iv) Each of Contractor's personnel understands and acknowledges that he/she is not a participant in any of PG&E's employee benefit plans as a result of the work performed for PG&E while employed by Contractor.

Contractor may include other terms and conditions in its individual employment agreements, provided that no such other terms and conditions conflict with the required provisions described herein. Contractor shall retain these employment agreements and PG&E retains the right to audit the agreements for compliance.

13.6.2 INDEMNIFICATION

- (a) Contractor shall indemnify, hold harmless and defend PG&E, its affiliates, subsidiaries, parent company, officers, managers, directors, agents, and employees (collectively, "PG&E Indemnitees"), from and against all claims, demands, losses, damages, costs, expenses, and liability (legal, contractual, or otherwise), which arise from or are in any way connected with any violation of local, state, or federal common law, statute or regulation, including but not limited to Employment Claims (as defined below), whether groundless or not, so long as such violation arises from or is in any way connected with Contractor's performance of, or failure to perform, this Contract, however caused, regardless of any strict liability or negligence of PG&E, whether active or passive, excepting only such loss, damage, cost, expense, liability, strict liability, or violation of law or regulation for which indemnity is not allowed under applicable law.
- (b) As used herein, "Employment Claims" include but are not limited to the following: state or federal wage and hour violations and whistleblower actions, alleged harassment and discrimination, unlawful termination, and all other employment-related claims; allegations that PG&E is an individual's "employer," "co-employer," or "de facto employer"; all claims arising under any of the following, as they may be amended: Title VII of the Civil Rights Act of 1964, the Equal Pay Act, the Americans with Disabilities Act of 1990, the Rehabilitation Act of 1973, the Worker Adjustment and Retraining Notification Act, the Occupational Safety and Health Act, the Sarbanes-Oxley Act of 2002, the Employee Retirement Income Security Act of 1974, the National Labor Relations Act, and any and all state or local statutes, ordinances, or regulations; and all claims arising under federal,

state, local law involving any tort, employment contract (expressed or implied), public policy, wrongful discharge, or any other claim, including but not limited to malicious prosecution, false imprisonment, assault, intentional infliction of emotional distress, slander, libel and violations of the California Fair Employment and Housing Act, the California Family Rights Act, the California Labor Code, the California Business and Professions Code, the California Government Code and/or the California Constitution.

13.6.3 COMPLIANCE WITH LAWS:

- (a) Contractor shall comply with all applicable federal, state and local laws, rules and regulations (collectively, "Laws"), and shall obtain all applicable licenses and permits for the conduct of its business and the supply of Contractor's personnel under this Contract, including but not limited to Laws governing affirmative action in employment, equal employment opportunities, non-discrimination, anti-harassment, wage and hour, environmental consciousness and sustainability, health and safety, privacy and identity theft protection. Contractor shall comply with the employer shared responsibility provisions of the Patient Protection and Affordable Care Act (ACA), including but not limited to offering those full time employees who perform Work for PG&E affordable, minimal essential coverage as required by ACA Section 4980H, parts (a) and (b). Contractor further agrees to monitor its compliance with ACA requirements and to provide PG&E with evidence of compliance upon request. Unless prohibited by Law, Contractor shall hold PG&E harmless from any liability, fine, or penalty incurred as a result of Contractor's failure to comply with applicable Laws.
- (b) Contractor shall perform the Work in compliance with all applicable Laws, including but not limited to the following:
 - (i) Make timely and accurate payment of Contractor's personnel and be responsible for withholding all income taxes and social security taxes from Contractor's personnel's wages, and for paying worker's compensation insurance premiums, state and federal unemployment insurance taxes and the employer's share of social security taxes on behalf of Contractor's personnel.
 - (ii) Submit all necessary documentation to agencies and perform all necessary actions;
 - (iii) Notify PG&E promptly in writing of any violation of Law that Contractor has reason to believe Contractor or PG&E may have committed in connection with this Contract or Contractor's personnel.
- (c) Contractor shall comply with all applicable PG&E rules, policies, and procedures which are provided to Contractor in connection with this Contract.
- (d) If Contractor believes there is a conflict between this Contract and a referenced document, or between different sections of this Contract, Contractor shall describe the conflict in writing along with a proposal for its resolution for PG&E review and approval.

14. DELAYS AND SUSPENSION OF WORK

- 14.1 NOTIFICATION: Contractor shall notify PG&E promptly in writing upon knowledge of any impending cause for delay and PG&E will use its best efforts to prevent the delay. Failure to notify PG&E shall constitute waiver by Contractor of concessions or benefits specified under this paragraph.

- 14.1.1 DELAYS WITHIN CONTRACTOR'S CONTROL: No additional compensation or other concessions will be allowed Contractor for expenses incurred as a result of delays arising from causes for which Contractor is responsible. If, in PG&E's opinion, a delay that is sufficient to prevent Contractor's compliance with the specified construction schedule, Contractor shall be required to accelerate the Work through overtime or other means, at its expense, to allow for completion on schedule.

14.2 DELAYS BEYOND CONTRACTOR'S CONTROL: In the event of a delay in delivery of material to be furnished by or through PG&E or a delay that is, in PG&E's opinion, caused by circumstances beyond Contractor's control, except delays due to inclement weather, PG&E will investigate the causes and remedies and may require or authorize any of the following procedures. Contractor will be promptly notified as to which procedure shall be followed:

- 14.2.1 If, in PG&E's opinion, the current progress of the Work is satisfactory and the delay is minor, Contractor may be required to complete the Work in accordance with the specified construction schedule with no allowance for extra time or extra compensation.
- 14.2.2 If, in PG&E's opinion, any actual delay is sufficient to prevent Contractor's compliance with the specified schedule, PG&E will require or authorize any of the following procedures:
 - (a) Extend the specified completion date, with no extra compensation, for a period of time equal to the delay plus, if strikes or other causes that make it necessary to close down the Work, an additional two days.
 - (b) Authorize overtime as necessary to comply with the specified completion date. PG&E will only reimburse Contractor for the premium portion of overtime. No other extra compensation will be allowed.
 - (c) Extend the specified completion date and authorize certain overtime as directed. Compensation for overtime will be as set forth in subsection (ii) immediately above.

15. CANCELLATION AND TERMINATION OF CONTRACT

15.1 CANCELLATION FOR CAUSE:

- 15.1.1 PG&E may, at its option, cancel or suspend, in whole or in part, this Contract or any one or more CWAs for cause, including but not limited to the following situations: (a) the failure, refusal or inability of Contractor to perform the Work in accordance with this Contract for any reason (except for those reasons that are without the fault, and beyond the control, of Contractor), following notice and an opportunity to cure and Contractor has failed to do so; provided, however, that safety or security violations may result in immediate cancellation; (b) Contractor has become insolvent, has failed to pay its bills, or has had checks for payment of its bills returned from suppliers and Subcontractors due to insufficient funds; (c) a legal action is placed against Contractor which, in PG&E's opinion, may interfere with the performance of the Work; or (d) in PG&E's opinion, the Work will not be completed in the specified time, PG&E has requested Contractor take action to accomplish the required progress and completion, and Contractor has failed to do so.
- 15.1.2 PG&E will be the sole judge whether Contractor is substantially performing Work in accordance with this Contract. If the Contract is cancelled for cause: (i) PG&E shall pay Contractor for services satisfactorily performed prior to the date of cancellation which are of benefit to PG&E, and (ii) Contractor shall be liable for additional costs to PG&E arising from cancellation.
- 15.1.3 Contractor shall vacate PG&E's worksite but shall not remove material, plant, or equipment without the approval of PG&E. In addition to other remedies, PG&E may, at its option and without prejudice to its other rights, take over and complete all or part of the Work using Contractor's equipment and facilities at the PG&E worksite. If a labor dispute or strike by Contractor's or its Subcontractors' employees threatens the progress or cost of Work, or PG&E's labor relations, or disrupts PG&E's operations, or results in a secondary boycott at PG&E's facilities, PG&E reserves the right to restrict the additional hiring of Contractor's employees, to suspend or discontinue the Work of the Contractor or any Subcontractor, or cancel the Contract for cause. This paragraph shall be applicable regardless of whether or not Contractor or any Subcontractor is directly involved in a labor dispute.

15.2 SUSPENSION OR TERMINATION FOR PG&E'S REASONS: PG&E may suspend or terminate, in whole or in part, the Contract or any one or more CWAs, without cause upon written notice to Contractor. Contractor shall mitigate its damages so as to minimize its claim, if any, against PG&E. If the Contract is terminated for PG&E's reasons, PG&E shall be liable to Contractor only for the compensation earned on the Work

satisfactorily performed to the date of termination, plus costs reasonably incurred by Contractor in terminating its operation.

- 15.3 CWA TERM AND TERMINATION: The cancellation, suspension and termination provisions in this Section shall apply to individual CWAs. If PG&E cancels, suspends or terminates the Work under a particular CWA, or if a particular CWA expires, the remainder of this Contract shall not be affected. In addition, if the term of any one or more CWAs continues beyond the termination date of this Contract, the terms and conditions of this Contract shall continue to apply to those CWAs until final completion and acceptance of the Work.

15.4 GENERAL

- 15.4.1 In no event shall PG&E be liable for lost or anticipated profits or overhead on uncompleted portions of the Work.
- 15.4.2 Contractor shall not enter into any agreements, commitments, or Subcontracts which would incur significant cancellation or termination costs without prior written approval of PG&E. Such written approval is a condition precedent to the payment of cancellation or termination charges by PG&E.
- 15.4.3 Before PG&E will release final payment, Contractor shall deliver to PG&E any and all reports, drawings, documents and deliverables prepared for PG&E before the effective date of cancellation or termination.
- 15.4.4 Commencing upon expiration, or upon notice to Contractor of cancellation or termination of a CWA or this Contract, and continuing for so long as PG&E may reasonably request, Contractor will provide reasonable assistance requested by PG&E to facilitate the orderly transfer of the Work and subject matter of the CWA or Agreement, respectively, as directed by PG&E. To the extent that compensation for such assistance is not already provided for by the CWA or Contract, PG&E and Contractor will negotiate reasonable compensation not to exceed Contractor's then-current, standard Hourly Rates for similar work.

16. DELIVERABLES AND USE RIGHTS

- 16.1 OWNERSHIP OF DELIVERABLES: PG&E shall own all data, reports, applications, information, manuals, computer programs or other written, recorded, photographic or visual materials, or other deliverables produced in the performance of this Contract. Contractor shall retain no ownership, interest, or title in them except as may otherwise be provided in the Contract.
- 16.2 PROPRIETARY RIGHTS: PG&E shall own all proprietary rights, including, but not limited to, exclusive patent and copyright rights, in and to any and all inventions, software, works of authorship, designs or improvements of equipment, tools or processes, including the items referenced in the Section titled "Ownership of Deliverables" (collectively, the "Developments"), conceived, developed, implemented, or produced by Contractor in the performance of this Contract, and Contractor shall retain no ownership, interest or title in or to them except as otherwise provided in this Contract. Contractor agrees to assign and hereby assigns all its right, title and interest in and to the patents, copyrights and other intellectual property rights in the Developments and hereby agrees to fully cooperate and to do all things reasonably necessary to allow PG&E to claim sole ownership, including the execution of documents deemed necessary by PG&E.
- 16.3 USE AND REPRODUCTION RIGHTS: If and to the extent that Contractor retains any preexisting rights in any materials furnished hereunder, including Developments, Contractor hereby grants to PG&E the irrevocable, perpetual, non-exclusive, worldwide, royalty free right and license to (i) make, use, execute, reproduce, display, perform, distribute copies of, and prepare derivative works based upon such preexisting rights and derivative works thereof in connection with PG&E's business and (ii) authorize others to do any or all of the foregoing in connection with PG&E's business. Any claims of Contractor to proprietary rights in materials furnished hereunder must be expressly set forth in this Contract or shall have been previously disclosed to PG&E in writing.
- 16.4 COPYRIGHT REGISTRATION: Notice of PG&E copyright ownership shall be placed by Contractor on all reports, information or instructional manuals, computer programs or other written, recorded, photographic or visual materials or other deliverables to which PG&E has the right of such ownership as provided in this Contract. Such notice shall be placed on the materials in a manner and location as to give reasonable

notice of the claim of copyright, and shall consist of the copyright symbol or the word "Copyright" followed by the year in which the material is produced and the words "Pacific Gas and Electric Company". Application for copyright registration shall be the responsibility of PG&E.

- 16.5 ROYALTIES AND LICENSE FEES: Royalties, license fees or other charges for patents, copyrights and other intellectual property for designs, processes, technology, published or unpublished data, information or technical materials including, but not limited to, manuals, computer programs, or other deliverables furnished by Contractor, or for processes or methods employed by Contractor in performing the services, shall be included in the Contract price.
- 16.6 DELIVERY AND RETENTION OF RECORDS: To the extent PG&E does not otherwise specifically request delivery of records or results, Contractor agrees to retain all records and results of Work performed under this Contract for a period of not less than two years from the date the Work is accepted by PG&E. At PG&E's request Contractor will deliver a copy of any or all original field notes, investigative notes, tests, photographs, records, calculations, summaries, reports, and records produced and collected in the course of the Work performed under this Contract.
- 16.7 PUBLIC RELEASE OF RESULTS: Contractor agrees not to release any results of the Work without first providing PG&E with the material sought to be released and a description of the publication for PG&E's prior approval. Contractor further agrees that no release shall present any material findings not reasonably inferable from the data. Any public release shall acknowledge PG&E's sponsorship of the Work.
- 16.8 THIRD PARTY LICENSES: Contractor represents and warrants that it shall comply (and ensure that its personnel and subcontractors comply) with all third party licenses, terms of use, policies and procedures that apply to or otherwise govern access to and/or use of any third party materials made available by PG&E to Contractor under this Contract.
- 16.9 PUBLIC TESTIMONY: It is further agreed between the Parties that, if requested by PG&E, Contractor shall provide testimony before any federal, state or local court, regulatory body or any other public agency to substantiate any Work performed or data, reports, or materials supplied to PG&E. Reasonable fees for such testimony will be agreed upon at the time.
- 16.10 CONTRACTOR'S USE OF PG&E PROPERTY: All records, reports, computer programs, written procedures and similar materials, documents or data, in whatever form, provided by PG&E for Contractor's use in the performance of Work under this Contract shall remain the confidential property of PG&E and shall be returned to PG&E immediately upon completion of Contractor's use for the performance of the Work or earlier upon the request of PG&E.
- 16.11 NO PUBLICITY: Contractor shall not include PG&E's name, any reference to this Contract, or any reference to PG&E's purchase or use of any products or services provided by Contractor in Contractor's published customer list or in other publicity or advertisement, including internet, without the prior written consent of an officer of PG&E. The fact that the Parties have entered into this Contract does not constitute, nor does it imply in any way, an endorsement of Contractor by PG&E, and Contractor will not state or imply that PG&E endorses, recommends, or vouches for Contractor in any form of written, verbal, or electronic advertisement, communication, or any other business development effort.

17. REQUIREMENTS AND POLICIES

- 17.1 PG&E'S SUPPLY CHAIN RESPONSIBILITY POLICY: It is PG&E's policy that small and diverse businesses shall have the maximum practicable opportunity to participate in providing the goods and services purchased by PG&E. Small and diverse businesses include Small Business Enterprises ("**SBES**"); Women, Minority, and Disabled Veteran Business Enterprises ("**WMDVBES**"); and Lesbian, Gay, Bisexual, and Transgender Business Enterprises ("**LGBTBES**").
 - 17.1.1 Contractor agrees to comply, and to require all Subcontractors and sub-Subcontractors to comply, with PG&E's Supply Chain Responsibility Policy, **Exhibit 2**, attached hereto and incorporated herein. Contractor shall provide a copy of **Exhibit 2** to each prospective Subcontractor.

- 17.1.2 Contractor shall act in accordance with its completed Prime Supplier Subcontracting Plan, **Exhibit 1-A**, attached hereto and incorporated herein, in the performance of the Work and in the award of all Subcontracts.
- 17.1.3 In addition, if the Contract exceeds \$500,000 (\$1 million for construction contracts), Contractor shall comply with **Exhibit 2A**, Policy Regarding Utilization of Small Business Concerns and Small Disadvantaged Business Concerns, attached hereto and incorporated herein, and the Prime Supplier Subcontracting Plan must include provisions for implementing the requirements of **Exhibit 2A**.
- 17.1.4 Each Bidder's Proposal shall describe how Bidder will comply with the requirements of **Exhibit 2** if awarded the Work. The requirements of **Exhibit 2** and the successful Bidder's response, along with a completed, signed copy of **Exhibit 1-A**, will be incorporated into the Contract.

17.2 FEDERAL REQUIREMENTS

- 17.2.1 EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION REGULATIONS POLICY: During the performance of this Contract and to the extent they may be applicable, Contractor agrees to comply with all laws, orders, and regulations included by summary or reference in the following paragraphs
- (a) Executive Order 11246, 41 CFR Part 60-1.4: Equal Opportunity Clause.
 - (b) Executive Order 11246, 41 CFR Part 60-1.8: Nonsegregated Facilities.
 - (c) Vietnam Era Veterans' Readjustment Assistance Act of 1974, 41 CFR Part 60-300.5.a: Equal Opportunity Clause. **Contractor and its Subcontractor(s) shall abide by the requirements of 41 CFR 60-300.5(a). This regulation prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans.**
 - (d) Section 503 of the Rehabilitation Act of 1973, 41 CFR Part 60-741.5.a: Equal Opportunity Clause. **Contractor and its Subcontractor(s) shall abide by the requirements of 41 CFR 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.**
- 17.2.2 EXECUTIVE ORDER 13496 – EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT. To the extent applicable, the employee notice requirements set forth in 29 C.F.R. Part 471, Appendix A to Subpart A are hereby incorporated by reference into this Contract.

- 17.3 CONTRACTOR SAFETY PROGRAM: Contractor represents and warrants that it will perform all applicable Work, and cause all Subcontractors to perform all applicable Work, in compliance with PG&E's Contractor Safety Program Standard Contract Requirements, as may be modified from time to time. The Contractor Safety Program Standard Contract Requirements can be located and downloaded at: www.pge.com/contractorsafety and are hereby incorporated by reference into this Contract. Contractor's failure to comply with the Contractor Safety Program Standard Contract Requirements shall be immediate grounds for termination for cause under this Contract. Notwithstanding the above, Contractor is the "controlling employer" as defined under CalOSHA and will remain responsible for all fines and liability arising from violation of the Contractor Safety Program Standard Contract Requirements and applicable law.
- 17.4 GOLD SHOVEL STANDARD CERTIFICATION: This Section applies if the Work under this Contract includes Excavation (as defined below). Before performing any Work involving Excavation, Contractor must be certified by the Gold Shovel Standard, a nonprofit organization that provides independent safety certification and performance measurement. As used in this section, the term "Excavation" has the meaning defined in California Government Code Section 4216(g), which provides as follows: "Excavation" means any operation in which earth, rock, or other material in the ground is moved, removed, or otherwise

displaced by means of tools, equipment, or explosives in any of the following ways: grading, trenching, digging, ditching, drilling, augering, tunneling, scraping, cable or pipe plowing and driving, or any other way.”

- 17.5 SUPPLIER CODE OF CONDUCT: CONTRACTOR, ITS SUBCONTRACTORS AND THEIR SUPPLIERS AT ALL TIERS, SHALL COMPLY WITH PG&E’S SUPPLIER CODE OF CONDUCT IN THE AWARD AND PERFORMANCE OF ALL CONTRACTS AND SUBCONTRACTS. The Supplier Code of Conduct requires that Contractor and each of its Subcontractors demonstrate a strong commitment to compliance, ethics, sustainability, and supplier diversity as a foundation to successful business. Contractor must complete its Work for PG&E in full compliance with the Supplier Code of Conduct, as it may be modified from time to time. Contractor shall access, read and comply with PG&E’s Supplier Code of Conduct and shall make it available to its Subcontractors and suppliers. The Supplier Code of Conduct is hereby incorporated by reference into this Contract. It is available at PG&E’s website, www.PGE.com, at the following link: <http://www.pge.com/includes/docs/pdfs/b2b/purchasing/suppliers/SupplierCodeofConductPGE.pdf>
- 17.6 CONFLICT OF INTEREST AND BUSINESS ETHICS
- 17.6.1 REASONABLE CARE: Contractor shall exercise reasonable care and diligence to prevent any actions or conditions which could result in a conflict with PG&E’s interest.
- 17.6.2 OTHER EMPLOYMENT: During the term of this Contract, Contractor or its employees will not accept any employment or engage in any work which creates a conflict of interest with PG&E or in any way compromises the Work to be performed under this Contract.
- 17.6.3 GIFTS: Contractor or its employees shall not offer or cause to be offered gifts, entertainment, payments, loans and/or other services, benefits or considerations of more than a nominal value to PG&E’s employees, their families, vendors, Subcontractors and other third parties.
- 17.6.4 ACCURATE DOCUMENTATION: All financial statements, reports, billings, and other documents rendered shall properly reflect the facts about all activities and transactions handled for the account of PG&E.
- 17.6.5 NOTIFICATION: The Contractor shall immediately notify PG&E of any and all violations of this clause upon becoming aware of such violation.
- 17.7 INJURY AND ILLNESS PREVENTION PROGRAM: In the performance of the Work under this Contract, Contractor acknowledges that it has an effective Injury and Illness Prevention Program which meets the requirements of all applicable laws and regulations, including but not limited to Section 6401.7 of the California Labor Code. Contractor shall ensure that any Subcontractor hired by Contractor to perform any portion of the Work under this Contract shall also have an effective Injury and Illness Prevention Program. The person with the authority and responsibility for implementing and administering Contractor’s Injury and Illness and Prevention Program shall execute the Compliance Certificate, **Exhibit 3**, attached hereto and incorporated herein.
- 17.8 PG&E DRUG AND ALCOHOL POLICY: PG&E is committed to maintain and promote job safety and health for all workers at its facilities. In addition, PG&E is determined to protect its employees, customers, and the general public while they are on PG&E property from any harm caused by illegal drug and alcohol use by non-PG&E personnel. To accomplish these objectives, PG&E has established a drug and alcohol policy for access to PG&E facilities by its Contractor and Subcontractor personnel. If any personnel of Contractor or its approved Subcontractors perform any Work or services at PG&E offices and/or other PG&E facilities, then Contractor shall comply with PG&E’s Drug and Alcohol Abuse and Testing Policies, attached hereto and incorporated herein as **Exhibit 4**.
- 17.9 DOCUMENT RETENTION AND PRODUCTION REQUIREMENTS: PG&E is committed to maintain documents and records so as to satisfy applicable legal, contractual and regulatory requirements as well as PG&E’s on-going business needs; to enable appropriate records management, provide appropriate retrieval and achieve the proper level of security and privacy. In furtherance of this commitment, Contractor agrees to comply with the requirements of **Exhibit 5**, PG&E Contractor Document Retention and Production Requirements, and **Exhibit 5A**, Document and Data List, each attached hereto and incorporated herein.

- 17.10 AVAILABILITY OF INFORMATION: Contractor shall keep accurate records and books of accounts, and shall preserve and make available such records and books of accounts, in accordance with the requirements of **Exhibit 6**, Audit Rights, attached hereto and incorporated herein.
- 17.11 CALIFORNIA HEALTH AND SAFETY CODE: The California Health and Safety Code requires businesses to provide warnings prior to exposing individuals to materials listed by the Governor as chemicals "known to the State of California to cause cancer, birth defects or reproductive harm." PG&E uses chemicals on the Governor's list at many of its facilities. In addition, many of these chemicals are present at non-PG&E-owned facilities and locations. Accordingly, in performing the Work or services contemplated under this Contract, Contractor, its employees, agents and Subcontractors may be exposed to chemicals on the Governor's list. Contractor is responsible for notifying its employees, agents, and Subcontractors that Work performed hereunder may result in exposures to chemicals on the Governor's list.
- 17.12 EXPORT CONTROLS. Contractor shall provide PG&E with information and assistance as may reasonably be required in connection with compliance with applicable import and export laws, including but not limited to, Manufacturer's Affidavits, Harmonized Tariff Schedules, Export Control Classification Numbers, and qualification information (e.g. origin) relevant to United States and foreign regulatory approvals for deliverables, products, and other materials furnished hereunder. Contractor shall make such information available to PG&E within five (5) business days following receipt of PG&E's written request.
- 17.13 WORK ON PG&E OR PG&E CUSTOMER ASSETS OR PREMISES: The following provisions shall apply to the extent that the Work under the Contract requires any Contractor or Subcontractor personnel (collectively, "**Personnel**") to have access to PG&E assets, premises, customer property, or logical access to PG&E data or systems (collectively, "**Access**").
- 17.13.1 CRIMINAL BACKGROUND CHECKS:
- (a) Contractor warrants and represents that it will not assign any Personnel to work requiring Access unless Contractor has performed a criminal background check on each such individual (either at the time of hiring or during the course of employment). Prior to assigning work requiring Access to any Personnel with one or more criminal convictions during the last seven years, Contractor must consider the gravity of the individual's offense, the time since the conviction, the successful completion of parole/probation, the individual's age at the time of conviction, the number of convictions, and the stability of the individual, including favorable work history. Contractor shall also consider the relation of the offense to the nature of the work the individual will perform.
 - (b) Notwithstanding the foregoing, in no event shall Contractor grant Access to an individual with one or more convictions for a Serious Offense(s), which is defined as violent and sex offenses, crimes against children, domestic violence, fraud, theft (including but not limited to identity theft), embezzlement, all felonies during the last seven years, and/or two or more DUI's in the past three years.
 - (c) Contractor shall maintain documentation related to its criminal background check investigation for all Personnel requiring Access and make it available to PG&E for audit if requested pursuant to the audit provisions of this Contract.
 - (d) Contractor also agrees to notify PG&E if any of its Personnel requiring Access are charged with or convicted of a Serious Offense during the course of a PG&E assignment.
- 17.13.2 FITNESS FOR DUTY: Contractor shall ensure that its Personnel granted Access report to work fit for duty. Personnel with Access may not consume alcohol while on duty and/or be under the influence of drugs that impair their ability to work safely. PG&E expects each supplier to have policies in place that requires their employees report to work in a condition that allows them to perform the work safely. For example, employees should not be operating equipment under medication that creates drowsiness. As a federal contractor, PG&E does not recognize nor allow work to be completed under the influence of marijuana, whether or not it is used for medical reasons.

- 17.13.3 ELIGIBILITY FOR PG&E WORK: When assigning any Personnel to perform Work requiring Access, Contractor shall submit each person's full name and the last four digits of their social security number to PG&E at the following e-mail address: RecruitingOperations@pge.com. PG&E reserves the right to decline to accept any proposed Personnel, in which case Contractor shall promptly propose a replacement.
- 17.13.4 NERC REQUIREMENTS: Pursuant to a NERC directive, PG&E has implemented policies and procedures for the protection of facilities, systems, assets and information that are critical to the operation or support of the Bulk Electric System ("BES"). PG&E identifies these facilities, systems, assets and information in accordance with its internal utility procedures. If this Contract relates to BES Cyber Systems or Bulk Electric System Cyber System Information (as designated by PG&E), then Contractor shall comply with the requirements of **Exhibit 7**, NERC Requirements and **Exhibit 7A**, PG&E NERC CIP Program Non-Employee Attestation Form, each attached hereto and incorporated herein. Contractor represents and warrants that it has consulted with PG&E to determine whether **Exhibit 7** is applicable to the Work under this Contract.

18. GENERAL PROVISIONS

18.1 AMENDMENTS, SUBCONTRACTS AND ASSIGNMENTS

- 18.1.1 AMENDMENT: No provision of the Contract will be deemed amended or waived by PG&E without prior written approval in the form of a signed Contract Change Order. No oral statement will modify or otherwise affect the terms and conditions set forth herein.
- 18.1.2 SUBCONTRACTS: Contractor shall not enter into Subcontracts without the prior written approval of PG&E (in each instance). All such approval requests shall be sent in writing to the PG&E Representative identified in the Contract or applicable CWA. Contractor agrees to impose on its Subcontractors obligations consistent with those imposed on Contractor under this Contract with respect to safety, security, confidentiality, ownership, insurance and indemnification. Contractor guarantees the performance of all Subcontractors performing any part of Contractor's responsibilities, and any breach of this Contract by Contractor's Subcontractors constitutes breach of this Contract by Contractor. Contractor agrees that Contractor is responsible for any acts or omissions of Subcontractors while performing Work hereunder. Fees and costs billed to PG&E shall be inclusive of any and all fees and compensation due to any Subcontractors. Contractor shall be solely responsible for the payment of any compensation, monies, wages or other payment due or allegedly due Subcontractors, and Subcontractors shall not seek payment (either directly or indirectly) from PG&E. Contractor acknowledges that PG&E shall have no obligation to compensate or otherwise pay a Subcontractor for any Work performed by the Subcontractor in connection with this Contract or any CWA.
- 18.1.3 ASSIGNMENT: PG&E may assign its rights or delegate its duties under this Contract, directly or indirectly, by operation of law or otherwise, without Contractor's prior approval or written consent, provided PG&E remains obligated to pay for services rendered up to the effective date of such transfer. Contractor may not assign its rights or delegate its duties under this Contract, directly or indirectly, by operation of law or otherwise without PG&E's prior written consent, except that Contractor may assign to Contractor's corporate affiliate in which Contractor holds a majority interest, provided that Contractor and the affiliate both remain obligated under this Contract. A party shall not unreasonably withhold, condition, or delay its consent. Subject to the foregoing, this Contract shall be binding upon and inure to the benefit of the successors and assigns of the Parties hereto. Any purported assignment of rights or delegation of duties in violation of this Section is void.

- 18.2 COMPLIANCE WITH LAWS: Contractor shall comply with all applicable federal, state and local laws, rules and regulations, and shall obtain all applicable licenses and permits for the conduct of its business and the performance of the Work called for in this Contract. Contractor shall comply with all environmental and endangered species requirements and shall conduct its operations in a manner that complies with applicable programs and permits. To the extent Contractor's work is subject to specific environmental permits or programs, PG&E will provide Contractor with such permit or program requirements. Unless

prohibited by law, Contractor shall hold PG&E harmless from any liability, fine or penalty incurred as a result of Contractor's failure to comply with applicable legal and regulatory requirements.

- 18.3 NO PUBLICITY: Contractor shall not include PG&E's name, any reference to this Contract, or any reference to PG&E's purchase or use of any products or services provided by Contractor in Contractor's published customer list or in other publicity or advertisement (including on-line or internet) without the prior written consent of an officer of PG&E. The fact that the Parties have entered into this Contract does not constitute, nor does it imply in any way, an endorsement of Contractor by PG&E, and Contractor will not state or imply that PG&E endorses, recommends, or vouches for Contractor in any form of written, verbal, or electronic advertisement, communication, or any other business development effort.
- 18.4 LEGAL REPRESENTATION: Each Party has had the opportunity to consult legal counsel, and has, to the extent it deems necessary, consulted legal counsel in connection with the negotiation and execution of this Contract.
- 18.5 CHOICE OF LAWS: This Contract shall be construed and interpreted in accordance with the laws of the State of California, excluding any choice of law rules which may direct the application of the laws of another jurisdiction. Any controversy or claim arising out of or in any way relating to this Contract which cannot be amicably settled without court action shall be litigated in a California State Court of competent jurisdiction; or if jurisdiction over the action cannot be obtained in a California State Court, in a Federal Court of competent jurisdiction situated in the State of California. The parties hereby waive any and all objections to the exclusive right of such courts to hear such disputes, including but not limited to objection as improper jurisdiction or forum non conveniens.
- 18.6 DISPUTE RESOLUTION
- 18.6.1 EXECUTIVE NEGOTIATIONS: The Parties shall attempt in good faith to resolve any dispute arising out of or relating to this Contract promptly by negotiations between a vice president of PG&E or his or her designated representative and an executive of similar authority of Contractor. Either Party may give the other Party written notice of any dispute which has not been resolved at a working level. Within 20 days after delivery of such notice, the executives shall meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary to exchange information and to attempt to resolve the dispute.
- 18.6.2 MEDIATION: If the matter has not been resolved within 30 days of the first meeting of the executives, either Party may at any time thereafter request mediation by written notice to the other Party. The mediation shall be conducted by a mutually-agreeable mediator with experience mediating complex commercial disputes. If the matter has not been resolved with 60 days after the request for mediation, then either Party may initiate litigation.
- 18.6.3 PERFORMANCE: Except as otherwise expressly provided in this Contract, each Party is required to continue to perform its obligations under this Contract pending final resolution of any dispute arising out of or relating to this Contract.
- 18.6.4 CONFIDENTIALITY OF DISPUTE RESOLUTION PROCESS: All negotiations and any mediation conducted pursuant to this Article are confidential and shall be treated as compromise and settlement negotiations, to which Section 1119 of the California Evidence Code shall apply, and Section 1119 is incorporated herein by reference.
- 18.6.5 PRELIMINARY INJUNCTION: Notwithstanding the foregoing provisions, a Party may seek a preliminary injunction or other provisional judicial remedy if in its judgment such action is necessary to avoid irreparable damage or to preserve the status quo.
- 18.7 NON-WAIVER: The waiver by either Party of any breach of any term, covenant or condition contained in this Contract, or any default in the performance of any obligations under this Contract, shall not be deemed to be a waiver of any other breach or default of the same or any other term, covenant, condition or obligation. Nor shall any waiver of any incident of breach or default constitute a continuing waiver of the same.
- 18.8 ENFORCEABILITY: If any of the provisions, or application of any of the provisions, of this Contract are held to be illegal or invalid by a court of competent jurisdiction, PG&E and Contractor shall negotiate in good faith

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an equitable adjustment in the provisions of this Contract with a view toward effectuating the purpose of this Contract. The illegality or invalidity of any of the provisions, or application of any of the provisions, of this Contract will not affect the legality or enforceability of the remaining provisions or application of any of the provisions of the Contract.

- 18.9 ENTIRE AGREEMENT: This Contract constitutes the entire agreement between the Parties and supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, with respect to the subject matter hereof and has been induced by no representations, statements or agreements other than those herein expressed.
- 18.10 SURVIVAL: Those provisions which by their nature should continue, including but not limited to the provisions concerning insurance, indemnity, liability, infringement protection, assignment, warranties and guarantees, document retention, business ethics, and availability of information, shall survive termination, cancellation or expiration of this Contract.

May 2017

**EXHIBIT DATA-1
CONFIDENTIALITY AND DATA SECURITY**

1. In addition to the requirements set out in Section 5.3, Confidentiality, of these General Conditions, Contractor shall comply with the following additional terms of this Exhibit DATA-1 regarding the handling of Confidential Information (as defined in Section 5.3 of the General Conditions) and PG&E Data (as defined below) from PG&E or its Customers.
2. **NON-DISCLOSURE AGREEMENTS:** Contractor shall require all of its employees, Subcontractors, and Subcontractor employees who will perform Work or services under this Contract to sign a non-disclosure agreement in the form attached hereto as Exhibit DATA-1A, Non-disclosure and Use of Information Agreement ("NDA"). Before starting said Work or services, Contractor shall promptly furnish the original signed NDAs to PG&E.
3. **SECURITY MEASURES:** Contractor shall take "Security Measures" with the handling of Confidential Information to ensure that the Confidential Information will not be compromised and shall be kept secure. As used herein, "Security Measures" shall mean industry data security standards and techniques, physical and logical, including but not limited to:
 - a. written policies regarding information security, disaster recovery, third-party assurance auditing, penetration testing,
 - b. password protected workstations at Contractor's premises, any premises where Work or services are being performed and any premises of any person who has access to such Confidential Information,
 - c. encryption of Confidential Information, and
 - d. measures to safeguard against the unauthorized access, destruction, use, alteration or disclosure of any such Confidential Information including, but not limited to, restriction of physical access to such data and information, implementation of logical access controls, sanitization or destruction of media, including hard drives, and establishment of an information security program that at all times is in compliance with the industry requirements of ISO 27001.
4. **COMPLIANCE AND MONITORING:** Contractor shall comply with security policies relating to the handling of Confidential Information.
 - a. Prior to PG&E's first transfer of Confidential Information to Contractor, Contractor shall provide PG&E with documentation satisfactory to PG&E that it has undertaken Security Measures.
 - b. Contractor and PG&E agree to meet periodically, if requested by PG&E, to evaluate Contractor's Security Measures and to discuss, in good faith, means by which the Parties can enhance such protection, if necessary.
 - c. Contractor shall update its Security Measures, including procedures, practices, policies and controls, so as to keep current with industry standards, including but not limited to NIST and NERC/CIP requirements, as applicable.
 - d. PG&E reserves the right to perform onsite security assessments to verify the implementation and ongoing operation and maintenance of security controls. At least annually, Contractor shall assist PG&E in obtaining a copy of any report that documents Contractor's Security Measures.
 - e. If PG&E determines Contractor has not complied with Security Measures, PG&E shall provide written notice to Contractor describing the deficiencies. Contractor shall then have sixty (60) calendar days to cure. If Contractor has not cured the deficiencies within sixty (60) calendar days, PG&E may cancel this Contract for cause in accordance with Section 8.2 of these General Conditions.
5. **PG&E DATA:** As used herein, "PG&E Data" shall mean:
 - a. all data or information provided by or on behalf of PG&E, including but not limited to, personally identifiable information relating to, of, or concerning, or provided by or on behalf of any Customers,
 - b. all data or information input, transferred, uploaded, migrated, or otherwise sent by or on behalf of PG&E to Contractor as PG&E may approve of in advance and in writing (in each instance),
 - c. account numbers, forecasts, and other similar information disclosed to or otherwise made available to Contractor by or on behalf of PG&E and Customers, and
 - d. all data provided by PG&E's licensors, including any and all survey responses, feedback, and reports, as well as information entered by PG&E, Contractor or Subcontractor, and Customers, if applicable.
6. **SECURITY OF PG&E DATA:** Contractor agrees that Contractor's collection, management and use of PG&E Data during the term of the Contract shall comply with these security requirements and all applicable laws, regulations, directives, and ordinances.
 - a. **Vendor Security Review:** Before receiving any PG&E Data, Contractor shall undergo PG&E's Vendor Security Review process. Contractor may receive PG&E Data if Contractor receives a risk rating of 3, 2 or 1 from PG&E at the conclusion of the PG&E Vendor Security Review process. If Contractor receives a risk rating of 4 or 5 from PG&E, Contractor may not receive PG&E Data until such time Contractor receives a risk rating of 3, 2 or 1.
7. **USE OF PG&E DATA:**
 - a. **License:** PG&E may provide PG&E Data to Contractor to perform its obligations hereunder. Subject to the terms of the Contract, PG&E grants Contractor a personal, non-exclusive, non-assignable, non-transferable limited license to use the PG&E Data solely for the limited purpose of performing the Work or services during the Contract term, but not otherwise.

- b. Limited Use of PG&E Data: Contractor agrees that PG&E Data will not be (a) used by Contractor for any purpose other than that of performing Contractor's obligations under this Contract, (b) disclosed, sold, assigned, leased or otherwise disposed of or made available to third parties by Contractor, (c) commercially exploited by or on behalf of Contractor, nor (d) provided or made available to any other party without written authorization, subject to the General Conditions, this Exhibit DATA-1, Confidentiality and Data Security, and Exhibit DATA-1A, Non-Disclosure and Use of Information Agreement.
 - c. Application Development: Contractor agrees that it will not engage in any application development without or until it has demonstrated compliance with the provisions of these General Conditions, this Exhibit DATA-1 and Exhibit DATA-1A.
8. SECURITY BREACH: Contractor shall immediately notify PG&E in writing of any unauthorized access or disclosure of Confidential Information and/or PG&E Data.
- a. Contractor shall take reasonable measures within its control to immediately stop the unauthorized access or disclosure of Confidential Information and/or PG&E Data to prevent recurrence and to return to PG&E any copies.
 - b. Contractor shall provide PG&E (i) a brief summary of the issue, facts and status of Contractor's investigation; (ii) the potential number of individuals affected by the security breach; (iii) the Confidential Information and/or PG&E Data that may be implicated by the security breach; and (iv) any other information pertinent to PG&E's understanding of the security breach and the exposure or potential exposure of Confidential Information and/or PG&E Data.
 - c. Contractor shall investigate such breach or potential breach, and shall inform PG&E, in writing, of the results of such investigation, and assist PG&E (at Contractor's sole cost and expense) in maintaining the confidentiality of such Confidential Information and/or PG&E Data. Contractor agrees to provide, at Contractor's sole cost and expense, appropriate data security monitoring services for all potentially affected persons for one (1) year following the breach or potential breach, subject to PG&E's prior approval.
 - d. If requested in advance and in writing by PG&E, Contractor will notify the potentially affected persons regarding such breach or potential breach within a reasonable time period determined by PG&E and in a form as specifically approved in writing by PG&E. In addition, in no event shall Contractor issue or permit to be issues any public statements regarding the security breach involving Confidential Information and/or PG&E Data unless PG&E requests Contractor to do so in writing.
9. RIGHT TO SEEK INJUNCTION: Contractor agrees that any breach of this Exhibit DATA-1 would constitute irreparable harm and significant injury to PG&E. Accordingly, and in addition to PG&E's right to seek damages and any other available remedies at law or in equity in accordance with this Contract, Contractor agrees that PG&E will have the right to obtain, from any competent civil court, immediate temporary or preliminary injunctive relief enjoining any breach or threatened breach of this Contract, involving the alleged unauthorized access, disclosure or use of any Confidential Information and/or PG&E Data. Contractor hereby waives any and all objections to the right of such court to grant such relief, including, but not limited to, objections of improper jurisdiction or forum non conveniens.
10. CPUC and IOU DISCLOSURE: Notwithstanding anything to the contrary contained herein, but without limiting the general applicability of the foregoing, Contractor understands, agrees and acknowledges as follows.
- a. PG&E hereby reserves the right in its sole and absolute discretion to disclose any and all terms of this Contract and all exhibits, attachments, and any other documents related thereto to the California Public Utilities Commission ("CPUC"), and that the CPUC may reproduce, copy, in whole or in part or otherwise disclose the Contract to the public.
 - b. PG&E may be required, or may deem it to be in the best interest of the Work, to disclose to other investor owned utilities ("IOUs") certain Work-related information (excluding any pricing information).
11. SUBPOENAS: In the event that a court or other governmental authority of competent jurisdiction, including the CPUC, issues an order, subpoena or other lawful process requiring the disclosure by Contractor of the Confidential Information and/or PG&E Data, Contractor shall notify PG&E immediately upon receipt thereof to facilitate PG&E's efforts to prevent such disclosure, or otherwise preserve the proprietary or confidential nature of the Confidential Information and/or PG&E Data. If PG&E is unsuccessful at preventing the disclosure or otherwise preserving the proprietary or confidential nature of the Confidential Information and/or PG&E Data, or has notified Contractor in writing that it will take no action to prevent disclosure or otherwise preserve the proprietary or confidential nature of such Confidential Information and/or PG&E Data, then Contractor shall not be in violation of this Contract if it complies with an order of such court or governmental authority to disclose such Confidential Information and/or PG&E Data.

May 2017

EXHIBIT DATA-1A
NON-DISCLOSURE AND USE OF INFORMATION AGREEMENT ("NDA")

THIS AGREEMENT is by and among _____ ("Contractor"), _____, ("Undersigned") authorized employee of Contractor (together, Contractor and Undersigned are referred to as the "Recipient"), and PACIFIC GAS AND ELECTRIC COMPANY ("PG&E"), a California corporation, on the date set forth below. Contractor and Undersigned agree as follows:

1. The Recipient acknowledges that in the course of performing services or work for PG&E ("Work"), the Recipient will be given access to certain Confidential Information, which may include (a) PG&E residential and/or commercial customer ("Customer") account information and information relating to their facilities, equipment, processes, products, specifications, designs, records, data, software programs, Customer identities, marketing plans or manufacturing processes or products, (b) any technical, commercial, financial, or Customer information of PG&E obtained by Recipient in connection with the Work, either during the Contract term or prior to the term but in contemplation that Contractor might be providing the Work or services, including but not limited to a Customer's energy usage and billing data, data, matters and practices concerning technology, ratemaking, personnel, business, marketing or manufacturing processes or products, which may be information owned by PG&E or by a third party and which may be in the custody of PG&E or third party and which constitutes valuable confidential and proprietary information and or trade secrets belonging to PG&E, and/or third parties, (c) any such confidential information of any third party disclosing such confidential information to PG&E or Recipient in the course of such third party's employment, engagement, business, or other relationship with PG&E or its parent, subsidiary, or affiliated companies and (d) PG&E Data as defined in Exhibit DATA-1, Confidentiality and Data Security, to the Contract (collectively, "Confidential Information").
2. In consideration of being made privy to such Confidential Information, and of the contracting for the Recipient's professional services by PG&E, the Recipient hereby shall hold the same in strict confidence, and not disclose it, or otherwise make it available, to any person or third party (including but not limited to any affiliate of PG&E that produces energy or energy-related products or services) without the prior written consent of PG&E. The Recipient agrees that all such Confidential Information:
 - a. Shall be used only for the purpose of providing Work or services for PG&E; and
 - b. Shall not be reproduced, copied, in whole or in part, in any form, except as specifically authorized and in conformance with PG&E's instructions when necessary for the purposes set forth in (a) above; and
 - c. Shall, together with any copies, reproductions or other records thereof, in any form, and all information and materials developed by Undersigned there from, be returned to PG&E when no longer needed for the performance of Undersigned's Work or services for PG&E.
3. The Recipient hereby agrees that any third parties owning any Confidential Information are express third party beneficiaries of this Agreement.
4. The Recipient hereby acknowledges and agrees that because (a) an award of money damages is inadequate for any breach of this Agreement by the Recipient or any of its representatives and (b) any breach causes PG&E irreparable harm, that for any violation or threatened violation of any provision of this Agreement, in addition to any remedy PG&E may have at law, PG&E is entitled to equitable relief, including injunctive relief and specific performance, without proof of actual damages.
5. This Agreement shall be governed by and interpreted in accordance with the laws of The State of California, without regard to its conflict of laws principles.

UNDERSIGNED**CONTRACTOR**

By: _____

Company Name: _____

Name: _____

Authorized Agent: _____

Title: _____

Name: _____

Company: _____

Title: _____

Date: _____

Date: _____

March 2017

EXHIBIT 1

PRIME SUPPLIER SUBCONTRACTING PLAN INSTRUCTIONS

Contractor shall provide a signed Prime Supplier Subcontracting Plan (Exhibit 1A) describing Contractor's planned utilization of Subcontractors and Suppliers. The first line on the form is completed as a sample. Line by Line instructions follow. Respond "N/A" for anything that is not applicable.

- a. Provide the complete name of the Subcontractor or Supplier. Do not abbreviate - please spell out any acronyms.
- b. Provide the California Contractor's License Number of each Subcontractor or Supplier (if applicable).
- (2a) Provide the Expiration Date of the Subcontractor or Supplier's California Contractor's License.
- c. Indicate whether Subcontractor or Supplier is signatory to a labor union by responding "Yes" or "No."
- d. Provide CPUC Clearinghouse Verification Order Number (VON) of Subcontractor's or Supplier as listed in the CPUC Clearinghouse Database (if applicable). To locate the VON, diversity status, or to find potential subcontractors, access the following site:
 - CPUC Clearinghouse Database: <https://sch.thesupplierclearinghouse.com/frontend/searchcertifieddirectory.asp>
- e. Provide Small Business number of Subcontractor or Supplier (if applicable). To determine status or to find potential subcontractors, access the following sites:
 - California Department of General Services (DGS): <http://www.dgs.ca.gov/pd/Programs/OSDS.aspx>
 - U.S. Small Business Administration (SBA): <https://www.sba.gov/contracting/getting-started-contractor/qualifying-small-business>
- f. Provide the Small Business Code of Subcontractor or Supplier (if applicable). See Small Business Code List in **Exhibit 1A**.
- g. Provide a description of the work to be performed or major materials to be supplied by the Subcontractor or Supplier.
- (7a) Indicate whether the work to be performed by each Subcontractor or Supplier includes excavation by responding "Yes" or "No." Refer to [Section 4216 of the California Government Code](#) for the definition of "excavation."
- h. Indicate the Gold Shovel Status for each Subcontractor or Supplier by responding as appropriate:
 - "N/A" for Subcontractor or Supplier who will not perform excavation work.
 - "Active" for Subcontractor or Supplier with an active Gold Shovel Certification.
 - "Inactive" for Subcontractor or Supplier that does not have current Gold Shovel Certification. Attach an explanation to **Exhibit 1A** indicating when Contractor anticipates Subcontractor or Supplier will obtain Gold Shovel Certification.

To determine status or to find potential subcontractors, access the following site: <http://www.goldshovelstandard.com>
- i. Indicate whether each Subcontractor or Supplier will be performing low, medium, or high risk work by responding "Low", "Med", or "High". Refer to PG&E's Contractor Safety Program Contract Requirements at <http://www.pge.com/contractorsafety> for risk definitions.
- j. Provide ISNetworkworld (ISN) Identification Number of each Subcontractor or Supplier performing medium to high risk work.
 - Respond "N/A" for any Subcontractor or Supplier performing low risk work.
 - Respond "None" if Subcontractor or Supplier has not completed ISN prequalification. Attach an explanation to **Exhibit 1A** explaining when Contractor anticipates Subcontractor or Supplier prequalification will be complete.
- (10a) Indicate whether Subcontractor or Supplier performing medium to high risk work is Prequalified in ISN by responding "Yes" or "No." Respond "N/A" for each Subcontractor or Supplier performing low risk work.
 - To determine prequalification status or to find potential subcontractors, access the following site: https://www.pge.com/en_US/for-our-business-partners/purchasing-program/suppliers/suppliers.page
- k. Provide the estimated amount to be paid to each Subcontractor or Supplier.
- l. Provide the total estimated amount to be paid to all Subcontractors and Suppliers.
- m. Provide the total estimated amount to be paid to the Prime Contractor or Supplier for work to be self-performed.
- n. Provide the total bid value in U.S. Dollars for all work to be performed.
- o. Provide the total estimated amount to be paid to all CPUC Clearinghouse Subcontractors and Suppliers with a VON.
- p. Provide the total estimated amount to be paid to all Small Business Subcontractors and Suppliers.



**Pacific Gas and
Electric Company**

Attachment 2: General Conditions
Campos EPC, LLC
Contract No. C3452

Prime Supplier Subcontracting Plan

EXHIBIT 1A

The information provided on this form may form the basis of a Statement of Record, against which PG&E may conduct an audit or review to ensure compliance.

Prime Contractor/Supplier: Campos EPC LLC.	Name of Preparer: Randy Ray
Employer Identification # (EIN): 20-1562187	Telephone: (303) 586-2121
PG&E Contract Number (if any): 4400009142	E-Mail: Randy.Ray@camposepc.com
PG&E Project/Product: TBA	Is Prime Contractor/Supplier CPUC Clearinghouse Certified? Yes X No VON: 9FN00039
Contract Duration (Year): From: 2018 To: 2021	Is Prime Contractor/Supplier a Registered Small Business? Yes No X Small Business #:

(1) Name of Subcontractor or Supplier	(2) / (2a) Contractor's License # / Expiration Date		(3) Union Signatory?	(4) CPUC VON ¹	(5) Small Business # ¹	(6) Small Business Code							(7) Description of Work Major Materials Excavation
Verus Engineering Services	N/A	N/A	No	N/A	2003411	S	SCADA, Instrumentation, and	No	Inactive	High	400-239977	Yes	\$1,050,000
Diversified Project Services	973308	5/31/18	No	N/A	1759811	S	Survey	No	Active	Mediu	400-173878	Yes	\$366,000
DR McNatty	N/A	N/A	N/A	1799831	1799831	S	Scheduling/Controls	No	N/A	Low	N/A	N/A	\$30,000
Kleinfelder	467252	12/31/18	No	N/A	N/A	N	Geotechnical	Yes	Active	Mediu	400-144499	Yes	\$500,000
Sage Engineering	N/A	N/A	No	N/A	33325	S	Civil Engineering/Consulting	Yes	Active	High	400-232073	Yes	\$300,000
Camilia Automation	N/A	N/A	No	5GN00003	N/A	N	Engineering/Consulting	No	Inactive	Low	N/A	N/A	\$155,000
MK Consulting Services	N/A	N/A	No	15040140	2007081	S	Controls/Automation Engineering	No	Inactive	Low	400-232129	Yes	\$210,000
VS2R Engineering	SE #	6/30/19	No	N/A	N/A	N	Structural Design/Drafting/	No	Inactive	Low	N/A	N/A	\$40,000
Leading Edge Staffing Solutions	N/A	N/A	No	16000853	Unregistered	N	Contractor Staffing	No	Inactive	Low	N/A	N/A	\$450,000
WHPacific	N/A	N/A	No	9BN00025	N/A	N	Land Survey	No	Inactive	Mediu	400-197635	Yes	\$600,000
Connexsys Engineering	N/A	N/A	No	N/A	N/A	N	Engineering/Consulting	No	Inactive	High	400-221342	Yes	\$450,000
Sequoia Engineering & Design	012911	03/31/19	No	N/A	2003581	S	Engineering/Consulting	No	Inactive	Mediu	400-202283	Yes	\$800,000
Cemtek Environmental	N/A	N/A	No	N/A	Unregistered	N	Environmental Engineering	No	Inactive	Low	400-193850	Yes	\$500,000
Energy Experts International Inc.	101319	04/30/18	Yes	0FN00009	N/A	N	Commissioning Support	No	Active	Low	400-230911	Yes	\$50,000
Wunderlich-Malec	804642	02/28/19	No	N/A	N/A	N	Engineering / Controls	No	Inactive	High	400-137345	Yes	\$230,000
Spartan Engineering	N/A	N/A	No	Cherokee	Unregistered	N	Engineering/Consulting	No	Inactive	Mediu	400-168991	Yes	\$175,000
													\$

¹ Subcontractors and Suppliers may have both a CPUC Clearinghouse and a Small Business Certification. Please list both numbers. If a company has more than one Small Business Certification, list the numbers in the following order: (1) DGS, (2) SBA, and (3) any other small business registry where a number is issued.

EXHIBIT 2

PG&E'S SUPPLY CHAIN RESPONSIBILITY POLICY

PG&E is committed to supply chain responsibility, including supplier diversity, sustainability, and ethical supply chain practices.

- PG&E's Supplier Diversity Program, launched in 1981, aims to provide diverse suppliers with economic opportunities to supply products and services to PG&E.
- The Supplier Sustainability Program, launched in 2007, encourages supplier responsibility, excellence and innovation.
- Promoting an ethical supply chain means that ethical supplier performance, including a supplier's efforts in each of the following areas, is an important consideration in supplier selection: health and safety, labor issues, human rights, ethical business conduct, and conflicts of interest.

SUPPLIER AND ITS SUBCONTRACTORS OF ALL TIERS MUST COMPLY WITH PG&E'S SUPPLY CHAIN RESPONSIBILITY POLICY IN THE AWARD OF ALL SUBCONTRACTS. This Policy requires that small and diverse businesses shall have the maximum practicable opportunity to participate in the performance of work, including Small Business Enterprises ("**SBEs**"); Women, Minority and Disabled Veteran Business Enterprises ("**WMDVBES**"); and Lesbian, Gay, Bisexual, and Transgender Business Enterprises ("**LGBTBES**").

In order to be considered for this Contract, the Supplier must comply with the following requirements:

1. Supplier shall provide a copy of this **Exhibit 2** to each prospective Subcontractor.
2. Supplier shall provide a separate signed Prime Supplier Subcontracting Plan (**Exhibit 1A**). Supplier shall also describe its Supply Chain Responsibility efforts and planned outreach to small, diverse businesses.
3. Qualifying Subcontractors must be certified as follows:
 - a. Small Business Enterprises must be registered as a small business with a state or federal agency (e.g. California Department of General Services or Small Business Administration);
 - b. Women-, minority-, and lesbian, gay, bisexual and transgender-owned businesses must be certified by the California Public Utilities Commission's Supplier Clearinghouse; and
 - c. Service disabled veteran-owned businesses must be certified by the California Department of General Services.
4. No later than the 10th of each month, Supplier shall submit its Subcontracting spend with small and diverse Subcontractors using PG&E's electronic reporting system located at the following address: <https://cvmas10.cvmsolutions.com/pge/default.asp>. To establish a User ID for use in the reporting system, Supplier shall submit a request via email to the following e-mail address: PVB1@pge.com.
5. For contracts exceeding \$500,000 (or \$1 million for construction), Suppliers must comply with the Policy Regarding Utilization of Small Business Concerns and Small Disadvantaged Business Concerns, as described in **Exhibit 2A**. The Prime Supplier Subcontracting Plan for these contracts must include provisions for implementing the terms of this **Exhibit 2**.

EXHIBIT 2A**POLICY REGARDING UTILIZATION OF SMALL BUSINESS CONCERNS AND
SMALL DISADVANTAGED BUSINESS CONCERNS**

The following policy of the United States shall be adhered to in the performance of this Contract:

- a) It is the policy of the United States that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals shall have the maximum practicable opportunity to participate in performing contracts let by any Federal Agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals.
- b) Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of Contractor's compliance with this clause.
- c) As used in this Contract, the term "small business concern" shall mean a small business as defined in Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto. The term "small business concern owned and controlled by socially and economically disadvantaged individuals" shall mean a small business concern (1) which is at least 51 percent unconditionally owned by one or more socially and economically disadvantaged individuals; or, in the case of any publicly owned business, at least 51 percent of the stock of which is unconditionally owned by one or more socially and economically disadvantaged individuals; and (2) whose management and daily business operations are controlled by one or more of such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one of these entities which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirement of 13 CFR Part 124. Contractor shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and other minorities, or any other individual found to be disadvantaged by the Administration pursuant to Section 8(a) of the Small Business Act. Contractor shall presume that socially and economically disadvantaged entities also include Indian Tribes and Native Hawaiian Organizations.
- d) Contractor acting in good faith may rely on written representations by its subcontractors regarding their status as either a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals.¹

¹ Notwithstanding this provision of the federal statute, all WMDVBE subcontractors must be verified pursuant to the procedures prescribed in Section 2 of CPUC General Order 156, as such procedures may be amended periodically.

Natural Gas Consulting and Field Services
08/31/2017KBW4

Attachment 2: General Conditions
Campos EPC, LLC
Contract No. C3452
March 2017

EXHIBIT 3
INJURY AND ILLNESS PREVENTION PROGRAM
COMPLIANCE CERTIFICATE

The undersigned hereby certifies to PG&E as follows:

1. The Company, and any Subcontractor hired by the Company to perform any portion of the Work under this Contract, has an effective Injury and Illness Prevention Program which meets the requirements of all applicable laws and regulations, including but not limited to Section 6401.7 of the California Labor Code.
2. The undersigned is an authorized representative of the Company identified below, with the authority and responsibility for implementing and administering the Company's Injury and Illness Prevention Program.

IN WITNESS WHEREOF, the undersigned has executed this Compliance Certificate.

Company: _____

By: _____

Print Name: _____

Title: _____

Date Signed: _____

EXHIBIT 4

PG&E DRUG AND ALCOHOL ABUSE AND TESTING POLICIES

I. PG&E POLICY

- 1.0 PREFACE: PG&E is committed to maintain and promote job safety and health for all workers at its facilities. In addition, PG&E is determined to protect its employees, customers, and the general public while they are on PG&E property from any harm caused by illegal drug and alcohol use by non-PG&E personnel. To accomplish these objectives, PG&E has established the following drug and alcohol policy for access to PG&E facilities by its Contractor and Subcontractor personnel.
- 2.0 COVERAGE: This policy applies to the personnel of all PG&E Contractors and Subcontractors performing any work or services at PG&E offices and/or any other PG&E facilities.
- 3.0 POLICY: PG&E may deny access to, or remove from, its facilities the personnel of any Contractor or Subcontractor, who PG&E has reasonable grounds to believe has:
- 3.1 Engaged in alcohol abuse or illegal drug activity which in any way impairs PG&E's ability to maintain safe work facilities, to protect the health and well-being of PG&E employees, customers, and the general public, and to promote the public's confidence in PG&E's service and operations; or
 - 3.2 Been found guilty, pled guilty, or pled nolo contendere to a charge of sale or distribution of any illegal drug or controlled substance as defined under Federal or California law within the past five years, unless the criminal record was later expunged or sealed by a court order.
- 4.0 PROHIBITED ACTIVITIES: The following activities are prohibited at all facilities owned or leased by PG&E:
- 4.1 Possessing, furnishing, selling, offering, purchasing, using or being under the influence of illegal drugs or other controlled substances as defined under Federal or California law;
 - 4.2 Possessing, furnishing, selling, offering, or using alcoholic beverage, or being under the influence of alcohol.
- 5.0 ACTIONS: Where reasonable cause exists that paragraph 4 of this policy has been violated, the Contractor or Subcontractor must inform the PG&E representative responsible for the Contract. The Contractor or Subcontractor is also expected to take any or all of the following actions to the fullest extent they are permitted under governing collective bargaining agreements and/or its applicable security and human resources policies.
- 5.1 Search the individual, his or her vehicle, locker, storage area, and personal effects;
 - 5.2 Require the individual to undergo a medical examination to determine their fitness for duty. Such examination shall include obtaining a urine and/or blood specimen for drug or alcohol analysis unless the examining physician deems such tests to be inappropriate;
 - 5.3 Take any other appropriate action to determine if there has been a violation of paragraph 4. Refusal to comply with a request made under this paragraph shall be grounds for denying access to, or immediate removal from, any PG&E facility.
- 6.0 PERMISSION TO RE-ENTER: Any individual who has been denied access to, or removed from, PG&E facilities or violating this policy may obtain permission to enter or reenter provided the individual establishes, to the satisfaction of his or her employer and PG&E, that the previous activity which formed the basis for denying access or removal has been corrected and his or her future conduct will conform with this policy. PG&E retains the right of final approval for the entry or reentry of any individual previously denied access to or removed from PG&E facilities.

II. U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS FOR DRUG AND ALCOHOL TESTING OF COMMERCIAL MOTOR VEHICLE DRIVERS AND OF NATURAL GAS PIPELINE WORKERS

- 1.0 Contractor agrees that, to the extent it may be applicable to this Contract, Contractor shall comply with the U.S. Department of Transportation's (DOT) regulations for (i) commercial motor vehicle drivers, 49 CFR 382, Controlled Substances and Alcohol Use and Testing and (ii) work on gas, hazardous liquid and carbon dioxide pipelines, and liquefied natural gas pipelines, 49 CFR Parts 192, 193 or 195, Control of Drug Use in Natural Gas, Liquefied Natural Gas and Hazardous Pipeline Operations. Contractor shall establish and maintain a drug and alcohol testing program for its employees consistent with 49 CFR Part 40, Procedures for Transportation Workplace Drug Testing Programs and 49 CFR 199, Drug and Alcohol Testing, as applicable. Contractor shall ensure that any Subcontractor hired by Contractor to perform any portion of the Work under this Contract that is regulated by 49 CFR 192, 193, 195 or 382 shall also have a drug and alcohol testing program that complies with applicable DOT requirements.
- 2.0 PG&E's duly authorized representatives, the CPUC, DOT and appropriate agencies shall have, during the term of the Contract and for two years thereafter, access at all reasonable times to Contractor's drug and alcohol testing program records for the purpose of monitoring compliance with DOT regulations. Contractor shall ensure that any Subcontractor hired by Contractor to perform any portion of the Work regulated by 49 CFR Part 192, 193, 195 or 382 under this Contract shall also provide access to its drug and alcohol testing program records to PG&E's authorized representatives, the CPUC, DOT and appropriate agencies for the purpose of monitoring compliance with DOT regulations. Failure to comply with this requirement may, at PG&E's option, result in cancellation or termination of existing contracts and the loss of opportunity to bid on future contracts.

EXHIBIT 5

PG&E CONTRACTOR DOCUMENT RETENTION AND PRODUCTION REQUIREMENTS

1. Contractor agrees to retain all documents and data, whether paper or electronic, created, collected or received for PG&E in the course of performing the Work or furnishing the materials under the Contract, including without limitation, documents, data, plans, drawings, diagrams, investigative notes, field notes, tests, photographs, records, calculations, summaries, and reports; provided that Contractor is not required to retain (i) draft versions of final written documents such as reports, presentations, or other written deliverables and (ii) documents that are inconsequential or ancillary to performance and documentation of the project or its deliverables as follows:
 - ☐ a. the documents and data specified in Exhibit 5A, Document and Data List, to this Contract and/or in individual work authorizations (CWA) under this Contract; or
 - ☐ b. all documents and data, whether paper or electronic, created, collected or received for PG&E in the course of performing the Work or furnishing the materials under the Contract.
- If neither Section 1(a) or Section 1(b) is checked, Section 1(b) shall apply. If Section 1(a) is checked, but documents and data are not specified in Exhibit 5A, or in a subsequently issued CWA, Section 1(b) shall apply. Collectively, the information shall hereinafter be referred to as "PG&E Contractor Documents."
2. Contractor shall store PG&E Contractor Documents in a secure and organized manner. All PG&E Contractor Documents shall be in legible form, whether paper or electronic. In managing and administering PG&E Contractor Documents, Contractor will comply with the requirements of "The Generally Accepted Recordkeeping Principles[®]" (see www.arma.org), or with modified requirements approved in writing by PG&E.
3. Upon completion of the Work or furnishing of the materials under the Contract, or upon completion of the Work or furnishing of the materials under each CWA under the Contract ("Work Completion Date"), PG&E will specify which of PG&E Contractor Documents must be transmitted by Contractor to PG&E ("PG&E Records"), provided however, unless otherwise agreed by PG&E:
 - a. Contractor shall transmit to PG&E, or provide PG&E access to, PG&E Records on request within forty eight (48) hours or sooner if needed (without limitation) for regulatory, CPUC, safety, audit and/or litigation requirements;
 - b. PG&E may specify that PG&E Records be delivered to PG&E on a regular basis prior to the Work Completion Date;
 - c. With respect to PG&E Contractor Documents not transmitted to PG&E as PG&E Records, Contractor shall retain all such documents for twenty four (24) months after the Work Completion Date ("Post-Termination Retention Period"). During the Post-Termination Retention Period, PG&E Contractor Documents shall be retained by Contractor at no additional cost to PG&E until disposed of in accordance with Section 6 below. To the extent PG&E requests Contractor to retain PG&E Contractor Documents after the Post-Termination Retention Period, the parties will mutually agree on the terms and conditions of such additional retention;
 - d. If PG&E Records are kept in electronic form, the following formats are acceptable for transmission to PG&E: (i) PDF, CAD or TIFF for drawings and diagrams and (ii) PDF for all other documents. If PG&E Records transmitted to PG&E consist of data in a proprietary format, Contractor shall make available to PG&E the proprietary tools or software necessary to access the data including after the transfer of the data to PG&E. This Section 3.d. shall not abrogate Contractor's obligation to produce PG&E Records in an alternative format (e.g., a native format) if set forth elsewhere in the Contract, in which case Contractor shall produce PG&E Records in each of the formats requested.
4. PG&E Contractor Documents shall be treated as confidential and shall not be disclosed to others unless Contractor is required to produce such documents pursuant to legal or regulatory requirements, in which case Contractor shall give PG&E maximum practicable advance notice prior to any production.
5. Contractor shall maintain a system for back-up of electronic PG&E Contractor Documents (e.g., files or databases) so they will be preserved for retrieval in the event that the originals are lost or destroyed.
6. If PG&E directs Contractor to dispose of PG&E Contractor Documents, Contractor shall do so in a confidential and secure manner, whether the format is electronic or paper. Proof of destruction of PG&E Contractor Documents shall be submitted to PG&E upon request.
7. If PG&E provides paper documents to Contractor in order to convert them to digital electronic format, Contractor shall return both the paper documents and the documents converted to digital electronic format to PG&E.
8. Contractor is responsible for ensuring that its Subcontractors regardless of tier comply with the obligations of Contractor where set forth in this **Exhibit 5**.
9. The terms and conditions of this **Exhibit 5**, including **Exhibit 5A** if attached, shall survive the termination of this Contract.

EXHIBIT 5A
DOCUMENT AND DATA LIST

If Section 1(a) of Exhibit 5 is checked, Contractor agrees that in connection with this Contract or CWA, as applicable, the following PG&E Contractor Documents will be created, received and/or maintained by Contractor:

*[Insert list of all specific PG&E Contractor Documents
required under this Contract or CWA]*

Natural Gas Consulting and Field Services
08/31/2017KBW4

Attachment 2: General Conditions
Campos EPC, LLC
Contract No. C3452

Nov 2015

EXHIBIT 6

AUDIT RIGHTS

1. ACCURACY OF RECORDS.

1.1 Contractor shall keep accurate records and books of accounts showing the items and costs billed under this Contract, as well as cost data supporting the Contract proposal and/or other representations, including detailed supporting cost data for assumptions and calculation of indirect cost rates specified in the Contract. Contractor shall also maintain nonfinancial documentation and records related to Work performed hereunder but not delivered to PG&E.

1.2 Contractor's books and records must provide sufficient detail to verify the charges shall include, without limitation, the following:

- Payroll records (hours, employee name, employee classification, multiplier breakdown, etc.) that account for total time worked under the Contract;
- Canceled payroll checks or signed receipts for cash payroll;
- Invoices (including all back-up details) for purchases, receiving and issuing documents, and all inventory records for Contractor's stock or capital items;
- Paid invoices and canceled checks for purchased materials, Subcontractor, and third-party charges;
- Records relating to air freight and ground transportation, including but not limited to handling, hauling, and disposing of materials/equipment; and
- Accurate, auditable records of gifts and entertainment to individual PG&E personnel.

2. **AVAILABILITY OF RECORDS.** Contractor shall preserve and make available its records and books of accounts, both manual and those which are in machine readable form (collectively, "Records"), for a period of three years from the date of final payment under this Contract. If this Contract is terminated, Contractor's Records shall be preserved and made available for a period of three years from the date of termination or of any resulting final settlement, whichever is later. Records which relate to litigation or the settlement of claims arising out of the performance of this Contract, or costs and expenses of this Contract to which exception has been taken by PG&E, shall be retained until such appeals, litigations, claims, or exceptions have been concluded.

3. **AUDIT.** Upon reasonable notice, PG&E or its representatives shall have the right to audit, without restrictions and at no additional cost to PG&E, at any time during normal business hours, the items and costs described in this Section, including without limitation, all fees and direct and indirect costs incurred by Contractor and billed to PG&E, to verify the rates and costs billed to PG&E hereunder are as represented by Contractor. PG&E may use recognized statistical sampling methods to determine an estimate of the total amount, if any, of PG&E overpayments or underpayments to Contractor.

4. **OVERPAYMENTS.** Contractor shall refund to PG&E any payments to Contractor which are not in accordance with Contract terms or are not supported by Contractor Records or other valid evidence.

5. **ERRORS/IRREGULARITIES.** If errors, irregularities, inaccuracies, mistakes or the like ("Errors") are discovered by audit or other means and PG&E relied upon such Errors in accepting the rates, the affected rates shall be adjusted accordingly, with such adjustment retroactive to the effective date of the Contract and any overpayments refunded to PG&E.

6. **MISREPRESENTATION OF COST OR PRICING DATA.** If any price, including profit or fee, negotiated in connection with this Contract, or any cost reimbursable under this Contract, was increased by any significant amount because Contractor or a Subcontractor misrepresented cost or pricing data in negotiations, the price or cost shall be reduced accordingly. This provision also applies to any future change order or modification to this Contract which involves the submission of cost or pricing data. The knowing misrepresentation of cost or pricing data by Contractor shall be considered a material breach of this Contract.

7. **TRANSACTION COSTS.** If an audit determines that Contractor overcharged PG&E or if Contractor knowingly submits overcharges or misrepresents cost or pricing data in any amount, Contractor agrees to reimburse PG&E both the amount of the overcharges plus PG&E's associated transaction costs, including but not limited to costs associated with the discovery and determination of the overcharge amount, the discovery of misrepresented cost or pricing data, and the quantification of any resulting overcharges.

8. **INTEREST ON OVERPAYMENTS.** If PG&E makes an overpayment to Contractor as a result of Contractor over billings, Contractor shall be liable to PG&E for interest on the amount of such overpayment to be computed (1) for the period beginning on the date the overpayment was made to Contractor and ending on the date Contractor repays the amount of such overpayment to PG&E, and (2) at a rate equal to the prime rate charged by the Bank of America, NT&SA, San Francisco, California.

9. **SUBCONTRACTS.** Contractor shall include the requirements of this Exhibit in each Subcontract.

Exhibit 7

NERC REQUIREMENTS

I. Applicability to Bulk Electric System Cyber Systems and Information

Pursuant to a directive from the North American Electric Reliability Corporation (“**NERC**”), PG&E has implemented policies and procedures for the protection of facilities, systems, assets and information that are critical to the operation or support of the Bulk Electric System (“**BES**”). PG&E identifies these facilities, systems, assets and information in accordance with its internal utility procedures.

If this Contract relates to BES Cyber Systems or BCSI (as designated by PG&E), then Contractor must comply with the additional requirements described in this Exhibit 7. Contractor represents and warrants that it has consulted with PG&E to determine whether Exhibit 7 is applicable.

II. Definitions

The following terms are defined for use in this Exhibit:

“**Access**” means:

- 1) Unescorted access by any person to facilities, systems and functions that PG&E deems critical to the support of the Bulk Electric System (“**Critical Facilities and/or Critical Systems**”), including persons working within PG&E Critical Facilities and/or Critical Systems; and
- 2) Physical or electronic access by any person to BCSI, or administrative control over BCSI or systems containing BCSI. For the avoidance of doubt, disclosing BCSI to a person by any means constitutes Access to such information by that person.

“**BCSI**” means Bulk Electric System Cyber System Information in any form (whether printed or electronic) including data, files, and file attributes. BCSI is information about a BES Cyber System that could be used to gain unauthorized access or pose a security threat to the BES Cyber System, as determined by PG&E. BCSI is typically classified by PG&E as “NERC CIP Confidential – BCSI” or “Restricted – BCSI,” but not all BCSI data will be designated as such in all formats.

“**BES**” means Bulk Electric System.

“**PRA**” means Personal Risk Assessment.

“**NERC**” means North American Electric Reliability Corporation.

“**WECC**” means Western Electricity Coordinating Council.

III. NERC CIP Security Obligations

- A. Contractor shall comply with all cyber security policies, plans and procedures relating to the BES Cyber Systems and/or BCSI as directed by PG&E. As directed by PG&E, Contractor shall provide documentation and evidence demonstrating such compliance. This may include the conduct of periodic tests and audits as specified by PG&E from time to time. Contractor acknowledges that Contractor's failure to comply and demonstrate compliance may subject Contractor and/or PG&E to fines and other sanctions.
- B. Before being granted Access, Contractor must satisfactorily complete PG&E's Vendor Security Review process. If Work is to be performed at Contractor locations, those locations must be approved by PG&E following completion of the Vendor Security Review Process. PG&E's approval does not limit its rights to conduct periodic audits and reviews as provided in the Contract.

Natural Gas Consulting and Field Services
08/31/2017KBW4

Attachment 2: General Conditions
Campos EPC, LLC
Contract No. C3452

- C. Contractor shall ensure that (i) any BCSI that is obtained by Contractor is stored and Accessed only within the United States, (ii) BCSI is not copied, exported, transferred or otherwise transmitted outside the United States, and (iii) no third party (including without limitation any individual, corporation, government or governmental agency), system or environment located outside the United States obtains Access to BCSI through Contractor. Without limiting any other term of this Contract, a third party, system, or environment will be deemed to have Access to BCSI if Contractor shares BCSI with such third party, system, or environment in any manner, or if such third party uses access tokens, cards, credentials, or other means of authentication furnished to Contractor by PG&E to obtain, view, download, or copy BCSI.
- D. Contractor shall ensure that any personnel requiring Access successfully complete background checks ("**Personnel Risk Assessments**" or "**PRAs**") and PG&E-mandated security training before they obtain Access, in accordance with the following requirements:
- 1) Contractor shall perform a background screening for each individual that includes each of the following criteria: (i) Social Security Number verification; (ii) City, County, State and Federal Criminal Check for felonies and misdemeanors over the past seven years (in up to three counties where the individual has lived in the past seven years); (iii) "Global Watch" (check of 19 Federal and International Terrorist Watch lists); and (iv) validation of current residence and confirmation of continuous residence at this site for a minimum of the most recent 6 months (confirmed by period of residence, employment, or education at a specific site) and validation of other locations where, during the seven years immediately prior to the date of the criminal check specified in 4a(ii) above, the individual has resided for six consecutive months or more.
 - 2) After performing an acceptable background check, the Contractor shall provide PG&E's Human Resources Department with a Personnel Risk Assessment Attestation Form in the form attached hereto as Exhibit 7A for the individual prior to the individual being granted Access. PG&E may request that Contractor provide a copy of the complete Personnel Risk Assessment results at the time the PRA Form is submitted.
 - 3) Contractor shall require that each individual complete an initial training and annual PG&E web-based training session on safety, information security, compliance with PG&E codes and procedures, including but not limited to CORP-0804 Cyber and Physical Security Awareness training (or alternative training as designated by PG&E). Contractor shall direct that each individual complete the PG&E training program by CD or by hard copy format, if Contractor informs PG&E that web based training is not feasible.
 - 4) After Contractor certifies to PG&E completion of the requirements set forth in paragraphs a. through c. above, PG&E will issue appropriate Access credentials. PG&E will deny Access to any individual for whom Contractor has not certified completion of the requirements set forth in paragraphs D(1) through (3) above.
 - 5) Every seven years, Contractor shall perform background screening as described herein for each individual on continuing assignment who has Access.
 - 6) Contractor shall retain documentation supporting the Personnel Risk Assessment Attestation Form for each individual with Access for a minimum of seven years.
 - 7) PG&E may audit Contractor's background screening methodology and substantiate the accuracy of Personnel Risk Assessment Attestation Forms for each individual. Contractor shall respond to any auditing requests and activities, including but not limited to data requests, within one business day. PG&E and/or WECC will set the frequency of auditing the Contractor's PRA process and supporting records.
- B. In addition to its other indemnity obligations hereunder, Contractor shall indemnify and hold harmless PG&E for any fines, penalties or other sanctions assessed against PG&E (including but not limited to fines, penalties or sanctions assessed against PG&E by the WECC, NERC, or the Federal Energy Regulatory Commission (FERC) for a violation of any NERC reliability standard) caused by Contractor's failure to perform its obligations under this Contract.

August 2017

EXHIBIT 7A
PG&E NERC CIP PROGRAM
NON-EMPLOYEE ATTESTATION FORM
COMPLETION OF PERSONNEL RISK ASSESSMENT (PRA) PROCESS

Please initial next to each line item below to verify that the following Non-Employee has received satisfactory results for each of the required background checks.

Non-Employee Name: _____

Contractor Name: _____

Requisition and/or PO Number: _____

Date NERC Background Check Completed: _____

Background Investigation – Completed and Passed the Following (Includes International Components When Applicable). *Initial next to each:*

- _____ Criminal Felony / Misdemeanor Search: Past 7 years, all names, all counties off the social trace (include past 7 years residency check)
- _____ Federal Criminal Search: Past 7 years, all names off the social trace
- _____ Prohibited Parties
- _____ SSN Trace
- _____ SSN Validation
- _____ Statewide Criminal Search

By completing and signing this form, Contractor confirms that the background investigation has been executed and satisfactory results received according to PG&E NERC CIP Program specifications for the above stated Non-Employee. All supporting documents must be kept on file with Contractor for a minimum of 7 years following the end of the Contractor's last non-employee's assignment at PG&E. Random audits of supporting documents may be conducted by PG&E or its designee, consistent with its right under the PG&E/Contractor contract, to ensure compliance with the requirements designated in the certification and contract.


☐ I hereby certify that I am authorized to sign on behalf of the aforementioned Contractor:

Contractor Representative Signature: _____

Contractor Representative Name (print): _____

Date Signed: _____

If you have any questions and need additional details regarding this process, please contact the PG&E Human Resources Department at nercaccess@pge.com.

Small Business Code List SBE-DGS A small business certified by the California Department of General Services (DGS) SBE-SBA A small business certified by the U.S. Small Business Administration (SBA) SBE-OTH A small business certified by another agency that issues a Small Business number						
				(12) Total All Subcontractors and Suppliers	\$5,906,000	
				(13) Total Self-Performed by Prime Contractor / Supplier:	\$30,000,000	
(14) Total Bid Value:		\$35,906,000	Date: 08/23/2017			
						
I hereby certify that the information listed is true to the best of my knowledge				(15) Total CPUC Clearinghouse Certified:	\$1,670,000	
I hereby certify that the information listed is true to the best of my knowledge				(16) Total Small Business Certified:	\$2,756,000	

¹ Subcontractors and Suppliers may have both a CPUC Clearinghouse and a Small Business Certification. Please list both numbers. If a company has more than one Small Business Certification, list the numbers in the following order: (1) DGS, (2) SBA, and (3) any other small business registry where a number is issued.

Attachment 3: Engineering Services Labor Rates

General Instructions		
Contractor shall submit rates for all engineering and technical services labor required to perform the work, by completing the form in the format provided.		
In doing so, Contractor shall only fill out areas highlighted in BLUE (unless a special exception is required).		

Instructions For Filling Out Form		
Column	Item	Instruction
Column B	Engineering Classification	Contractor shall provide a list of labor classifications required to complete the work. Contractor shall only fill out applicable levels. Contractor may alter level descriptions by adding levels as necessary, but please highlight any changes.
Column G	Base Wage	Contractor shall provide Hourly Wages (\$) paid to respective labor classification.
Column H	Non-Taxable Fringes	Value of all non-taxable fringes including: health & welfare, holidays, retirement benefits, training, education expenses and any other fringes
Column I	Taxable Fringes	Value of all taxable fringes including: vacation and sick days
Columns J - M	Payroll Taxes	Contractor shall fill in percentages in row 4 for applicable payroll taxes (Note: Contractor shall assume FICA is fixed at the provided percentage).
Columns N - O	Overhead & Profit	Contractor shall fill in the desired percentages in row 4 cells for Overhead (OH) and Profit fees. Contractor shall also provide OH breakdown.
Columns P - R	Category Totals	Automatically calculated values representing sum of engineering rate markups by category.
Column S	Total Billing Rate	Automatically calculated value representing the fully loaded hourly labor rate paid to Contractor.
Column T	Comments	If there are any exceptions/issues/differences with any of the classifications, please provide a comment in this column.

Corporate Overhead Definition

PG&E defines Overhead as compensation for any corporate or divisional overhead or cost, cash-expense, or non-cash expense inherent in the performance of the Contractor's business that is not directly related to the service being provided.

The following costs are considered Overhead costs related to Contractor’s employees and agents.

Income taxes, payroll taxes, commission expense, insurance, pension, employee benefits and business travel associated with Contractors officers, executives, general managers, principals, project managers, auditors, accountants, purchasing and contract agents, cost control personnel, technical personnel, administrative, clerical and other employees or agents of Contractor’s principal offices, local offices, site offices and nearby staging areas. Workers Compensation insurance for all employees should also be included in OH.

The following costs are considered Contractor’s General Overhead which include but are not limited to:

Contractor’s building/facility costs (including ownership costs, rental costs, utilities, etc.), machinery, office equipment, reproduction, coping, facsimile, data exchange, plotting, drawings, computer assisted design and drafting (CADD), shipping, telecommunications ,including file provided telecommunactions and wireless communications, all computer hardware, computer software, computing, marketing, promotion, advertising, policy compliance, safety certification training and technical qualification training and testing. GL insurance for the company should also be included in OH.

The following costs are considered non compensable costs which are not to be included in Contractor’s overhead or in Contractor’s labor rates. These costs include but are not limited to:

1. Interest for late payments, penalties, fees, fines, judgments, settlements, or other expense that is paid or incurred as a result of Contractor’s actual or alleged violation of a contract, law, rule, or regulation.
2. Cost associated with Contractor’s employee and officer performance programs, employee and officer incentive programs, employee and officer bonus programs and all profits sharing programs. All such employee incentive programs shall be compensated through Contractors profit fee.
3. Any costs arising from the negligent or other wrongful acts or omissions of Contractor, a Subcontractor, anyone directly or indirectly employed by Contractor.
4. Costs associated with repair or replacement of defective Work or costs of material wasted due to careless workmanship.

Rate Calculation - California and Non-CA Based Resources						Fringe		Percentage of Base Wage						Category Totals			TOTAL BILLING RATE	Comments
PG&E Classifications	Labor Description	Required Years of Relevant Experience	Education	Title Requirement	Base Wage (\$/hr)	Non Taxable Fringes	Taxable Fringes	Payroll Taxes				Fee		Fringes	Payroll Taxes	OH & Profit		
						Health & Welfare, Holidays, Retirement Benefits, etc.	Vacation, Sick Days	Medicare	OASDI	FUI	SUI	Overhead (% of base wage)	Profit (% of base wage)					
ENTER PERCENTAGES IN THIS ROW								1.45%	6.20%	0.80%	6.20%	28.60%	10.00%					
Administrative	Provides administrative and clerical support.	>1 year	Minimum High School Diploma. Associate's degree preferred.	N/A	\$ 28.59	\$ 2.03	\$ 2.76	\$ 0.45	\$ 1.94	\$ 0.25	\$ 1.94	\$ 8.18	\$ 2.86	\$ 4.79	\$ 4.59	\$ 11.03	\$ 49.00	
Engineer I (Associate)	Performs engineering assignments and tasks using standard engineering techniques and approaches to develop engineering alternatives. Independently performs tasks needed to complete assignments. Demonstrates sound engineering judgment and work is supervised This is an entry-level Engineer job that works under the general technical direction of more experienced engineers. This position trains in all job duties and requires a high level of training, direction and review of work. This job is responsible for providing engineering for routine projects and project support.	0 - 2 years	Bachelor's degree in Engineering required	N/A	\$ 49.64	\$ 3.52	\$ 4.72	\$ 0.79	\$ 3.37	\$ 0.43	\$ 3.37	\$ 14.20	\$ 4.96	\$ 8.24	\$ 7.96	\$ 19.16	\$ 85.00	
Engineer II (Engineer)	Performs engineering assignments and tasks of an experienced engineer. Understand the application of engineering techniques and applications to solve engineering assignments. Receives close supervision on new assignment and subsequent supervision is focused on unusual or difficult engineering challenges. This is a journey-level engineer position that requires executing routine engineering duties with minimal assistance. This position requires a moderate level of training, direction and review of work from more senior engineers and peers. This job is responsible for providing engineering for routine projects and project support.	2 - 8 years	Bachelor's degree in Engineering required	N/A	\$ 68.33	\$ 4.85	\$ 6.49	\$ 1.08	\$ 4.64	\$ 0.60	\$ 4.64	\$ 19.54	\$ 6.83	\$ 11.34	\$ 10.96	\$ 26.37	\$ 117.00	
Engineer III (Senior)	Independently evaluates, determines and applies standard engineering techniques and approaches using independent judgment. Independently performs all tasks necessary to complete primary design of engineering work. Assistance is provided for challenging or difficult assignment but possesses the ability and judgment to investigate and recommend alternative approach's for assignment that do not have clear objectives. • Performs moderate to complex engineering work and projects simultaneously • Expands knowledge in other areas of specialty or discipline, developing breadth or further develops expertise and specialization on one area • Provides engineering and technical solutions by using existing or developing tools, methods, approaches and tactics in new ways or by modifying and improving them. • Evaluates methodologies, best practices, tools, processes, procedures and technology assessing potential fit, benefits, and impacts for engineering work and projects assigned • Presents engineering research, findings solutions and recommendations to leadership • Works independently under limited direction and guidance • Expected to provide training, guidance, instruction and coaching to other Engineers • Manage multi-disciplined engineering team including engineering contractors. • Design and engineer using the applicable federal and company codes and standards.	8 - 13 years	Bachelor's degree in Engineering required	Registered Professional Engineer license preferred	\$ 88.77	\$ 6.30	\$ 8.43	\$ 1.41	\$ 6.03	\$ 0.78	\$ 6.03	\$ 21.39	\$ 8.88	\$ 14.74	\$ 14.24	\$ 30.26	\$ 148.00	
Engineer IV (Expert)	Performs advanced engineering work requiring specialized knowledge and experience and directs the work of other employees performing design work. Checks for general and overall coordination of the various branches of the work involved. Extensive experience in design work or the equivalent in experience and ability. May be required to perform such additional duties as training; coordinating and scheduling work assignments; prepare weekly cost, manpower, and progress reports; use mechanical and electrical survey and testing equipment to carry out assignments; calculation, analysis and performance of simple engineering problems and related technical duties. Monitors projects and recommends changes to improve operating efficiency. Possesses the competence of a fully trained engineer/worker. • Solves complex problems by developing and utilizing new and innovative engineering design and technical solutions • Is recognized as a subject matter expert in one or more disciplines related to meter, regulation, compressor, pipeline or other gas transmission facilities. Also processes breadth of knowledge and performs analyses and projects across several disciplines. • Studies, evaluates and tests new or revised methodologies, best practices, tools, processes, procedures and technology assessing potential fit, benefits, and impacts to Gas Operations • Technical pathfinder that searches for practical breakthrough solutions to complex problems and issues • Works independently with guidance on only the most complex projects • May act as team lead and provide direction to less experienced employees.	>13 years	Bachelor's degree in Engineering required	Registered Professional Engineer license required for Electrical, Mechanical, Civil and Process PE Preferred for other disciplines	\$ 97.53	\$ 6.92	\$ 9.26	\$ 1.55	\$ 6.62	\$ 0.85	\$ 6.62	\$ 19.89	\$ 9.75	\$ 16.19	\$ 15.64	\$ 29.64	\$ 159.00	
Engineer (Principal)	Manages engineering projects. Supports oversees and coordinates engineering production activates for and operating unit. Makes decisions and recommendations that are of an authoritative nature. Initiates and maintains contact with senior level management and is skilled in dispute resolution and negotiation of critical issues. Demonstrates understanding of project delivery requirements, is creative, forward thinking with a multi-disciplinary team to meet project goals and deliver high quality engineering deliverables. Demonstrates outstanding and mature judgment to assist with solving challenges and problems. • Applies extensive and unique subject matter expertise in the development of strategies or in the resolution of complex issues • Is recognized as the authority in one or more disciplines related to meter, regulation, compressor, pipeline or other gas transmission facilities. Also processes breadth of knowledge and performs analyses and projects across several disciplines. • Solves unique and complex problems, anticipates issues and develops innovative solutions • May manage major cross-functional projects and initiatives • Works with senior management to support strategic planning and decision making • Develops and presents complex technical information clearly, concisely and effectively • Coaches and mentors less experienced employees • Works autonomously on all projects including extremely complex projects • Expected to act as team lead and provide direction to less experienced employees • Lead or assists in development of Processes, Standards and Specifications	>15 years	Bachelor's degree in Engineering required	Registered Professional Engineer license required	\$ 102.20	\$ 7.26	\$ 9.71	\$ 1.62	\$ 6.94	\$ 0.90	\$ 6.94	\$ 17.23	\$ 10.22	\$ 16.96	\$ 16.39	\$ 27.45	\$ 163.00	
CADD Drafter I (Design Drafter)	Under supervision, performs general drafting or mapping work of a moderately difficult nature frequently requiring a search of data and coordination of information. Works from design studies, sketches, computations, or other data of moderate complexity prepared by an employee of higher classification. May be required to do computing work involving a limited knowledge of engineering formula. Assists in developing designs using standard engineering practices. This level is viewed as an entry level position.	0 - 4 years	Minimum High School Diploma. Associate's degree preferred.	N/A	\$ 46.13	\$ 3.28	\$ 4.38	\$ 0.73	\$ 3.13	\$ 0.40	\$ 3.13	\$ 13.19	\$ 4.61	\$ 7.66	\$ 7.40	\$ 17.81	\$ 79.00	
CADD Drafter II (Senior Design Drafter)	Under limited supervision, performs design functions in selected discipline, using standard CAD software. Receives instruction on daily work and general instructions on new assignments. Prepares drawings, layouts, sketches, maps, and graphic representations of engineering designs by hand or using computer-aided design software. Performs drawing checks to confirm accuracy and acceptability guided by drafting standards/specifications. This level is viewed as average within the scope of the position.	5 - 10 years	Associate's degree/technical CADD certification or Bachelors degree preferred.	N/A	\$ 55.48	\$ 3.94	\$ 5.27	\$ 0.88	\$ 3.77	\$ 0.49	\$ 3.77	\$ 15.87	\$ 5.55	\$ 9.21	\$ 8.90	\$ 21.41	\$ 95.00	
CADD Drafter III	Performs routine as well as non-routine and complex drafting assignments requiring judgment in resolving issues or making recommendations. Decisions made with general understanding of procedures and company policies to achieve set results and deadlines. Follows specific standardized procedures to achieve set results and deadlines. Receives little instruction on daily work; general instructions on new assignments. Under very limited review, prepares non-routine and complex drawings, layouts, sketches, maps, and graphic representations of engineering designs by hand or using computer-aided design software. Incumbents at this level typically provide some design recommendations. May function as a trainer for less-experienced CADD Drafters. This level is viewed as advanced within the scope of the position.	>10 years	Associate's degree/technical CADD certification or Bachelors degree preferred.	N/A	\$ 67.16	\$ 4.77	\$ 6.38	\$ 1.07	\$ 4.56	\$ 0.59	\$ 4.56	\$ 19.21	\$ 6.72	\$ 11.15	\$ 10.77	\$ 25.92	\$ 115.00	
GIS Specialist I (Mapper)	Competent level of experience in map production and data management. Works under the direction of a GIS Specialist or Senior GIS Specialist to gather data, prepare map files, and produce map products. Work requires supervision.	0 - 2 years	Associate's Degree in related field required	N/A	\$ 50.22	\$ 3.57	\$ 4.77	\$ 0.80	\$ 3.41	\$ 0.44	\$ 3.41	\$ 7.36	\$ 5.02	\$ 8.34	\$ 8.06	\$ 12.39	\$ 79.00	
GIS Specialist II	Generally has 2 to 8 years of GIS experience in managing data collection, manipulation, storage, and map production. Is able to manage moderately complex projects, but consults with Senior GIS Specialist for more complex issues.	2 - 4 years	Associate's Degree in related field required	N/A	\$ 66.58	\$ 4.73	\$ 6.32	\$ 1.06	\$ 4.52	\$ 0.58	\$ 4.52	\$ 9.04	\$ 6.66	\$ 11.05	\$ 10.68	\$ 15.70	\$ 104.00	
GIS Specialist III	GIS expertise in managing data collection, manipulation, storage, and map production. Is able to manage complex projects, but consults with Senior Specialist for more complex issues. Demonstrates sound judgment and work and deliverable require limited supervision.	>4 years	BA in Geography, Computer Science, or a social science with an emphasis on GIS required	N/A	\$ 80.59	\$ 5.72	\$ 7.66	\$ 1.28	\$ 5.47	\$ 0.71	\$ 5.47	\$ 7.05	\$ 8.06	\$ 13.38	\$ 12.93	\$ 15.11	\$ 122.00	
Engineering Consultant Technical I	Provides project analysis, executes work plans and task definition, participates in data collection. Helps to develop solutions to client problems with a focus on financial analysis and capital investment. Works under the guidance of a more senior manager. Works as a consultant to a wide variety of areas. Classification may also include scientists, specialized engineers, or other experienced technical professionals regularly engaged to perform specific tasks or analyses.	2 - 5 years	Bachelor Degree in related field required	N/A	\$ 69.00	\$ 4.90	\$ 6.56	\$ 1.10	\$ 4.68	\$ 0.60	\$ 4.68	\$ 11.57	\$ 6.90	\$ 11.45	\$ 11.07	\$ 18.47	\$ 110.00	

PG&E Classifications	Labor Description	Required Years of Relevant Experience	Education	Title Requirement	Base Wage (\$/hr)	Non Taxable Fringes	Taxable Fringes	Payroll Taxes				Fee		Fringes	Payroll Taxes	OH & Profit	TOTAL BILLING RATE	Comments
Engineering Consultant Technical II	Provides project analysis, executes work plans and task definition, participates in data collection. Has a solid foundation of understanding or analysis of client business practices and goals; develops and formulates solutions to client problems on assigned projects. Responsible for the creation of work plans and task definition. Works with minimal supervision and has broad technical knowledge. Can also specialize in specific areas of expertise Classification may also include scientists, specialized engineers, or other experienced technical professionals regularly engaged to perform specific tasks or analyses.	5 - 10 years	Bachelor Degree in related field required	N/A	\$ 75.39	\$ 5.35	\$ 7.16	\$ 1.20	\$ 5.12	\$ 0.66	\$ 5.12	\$ 9.46	\$ 7.54	\$ 12.51	\$ 12.09	\$ 17.00	\$ 117.00	
Engineering Consultant Technical III	Senior consultant, has a thorough knowledge of client business practices and goals; develops and formulates solutions to client problems on assigned projects. Creates work plans and task definition. Has broad technical knowledge, possessing more than one area of specialization or focus. Classification may also include supervising individual scientists, specialized engineers, or other experienced technical professionals on projects that are particularly complex, with multiple major components.	>10 years	Bachelor Degree in related field required	N/A	\$ 84.68	\$ 6.01	\$ 8.04	\$ 1.34	\$ 5.75	\$ 0.74	\$ 5.75	\$ 24.22	\$ 8.47	\$ 14.06	\$ 13.58	\$ 32.69	\$ 145.00	
Project Scheduler I	This is a entry level Scheduler position able to work and to provide scheduling support on any distribution and transmission projects. The Scheduler, in coordination with Project Manager develop project schedule and cash flow/forecast plans with functional department input, attend Project and Job kickoff and walk down meetings, and create, maintain and update schedules. They will also be able to develop, maintain and control project schedule plans using appropriate software (for ex: SAP Project System, SAP Work Management System, Primavera P6, and MS Project).	0 - 6 years	Bachelor degree or commensurate experience required	N/A	\$ 69.00	\$ 4.90	\$ 6.56	\$ 1.10	\$ 4.68	\$ 0.60	\$ 4.68	\$ 15.57	\$ 6.90	\$ 11.45	\$ 11.07	\$ 22.47	\$ 114.00	
Project Scheduler II	This is a senior level Scheduler position able to work and to provide scheduling support on any distribution and transmission projects. The Scheduler, in coordination with Project Manager develop project schedule and cash flow/forecast plans with functional department input, attend Project and Job kickoff and walk down meetings, and create, maintain and update schedules. This position requires a minimum of 3 years of functional experience. They will also be able to develop, maintain and control project schedule plans using appropriate software (for ex: SAP Project System, SAP Work Management System, Primavera P6, and MS Project).	>6 years	Bachelor degree or commensurate experience required	N/A	\$ 75.00	\$ 5.33	\$ 7.13	\$ 1.19	\$ 5.09	\$ 0.66	\$ 5.09	\$ 18.02	\$ 7.50	\$ 12.45	\$ 12.03	\$ 25.52	\$ 125.00	
Engineering Project Manager I	Oversees projects of a moderate complex nature. Plans, directs and supervises all operations included in programs and projects. Manages and leads the overall project and the project team including all technical and financial. Has demonstrated the capability to manage a moderate project of high complexity. Leads and manages the project team through all phases of project planning, execution, and closeout, consistent with established project delivery processes to the meet the scope, schedule, budget and other specified requirements.	3-5 years	Bachelor degree required. Engineering degree preferred	PMP or equivalent preferred.	\$ 80.59	\$ 5.72	\$ 7.66	\$ 1.28	\$ 5.47	\$ 0.71	\$ 5.47	\$ 23.05	\$ 8.06	\$ 13.38	\$ 12.93	\$ 31.11	\$ 138.00	
Engineering Project Manager II	Oversees projects of a moderate and or highly complex nature. Plans, directs and supervises all operations included in programs and projects. Manages and leads the overall project and the project team including all technical and financial. Has demonstrated the capability to manage a large project of high complexity. Leads and manages the project team through all phases of project planning, execution, and closeout, consistent with established project delivery processes to the meet the scope, schedule, budget and other specified requirements.	5 - 15 years	Bachelor degree required. Engineering degree preferred	PMP or equivalent preferred.	\$ 88.77	\$ 6.30	\$ 8.43	\$ 1.41	\$ 6.03	\$ 0.78	\$ 6.03	\$ 25.39	\$ 8.88	\$ 14.74	\$ 14.24	\$ 34.26	\$ 152.00	
Engineering Project Manager III	Oversees projects of a large and or highly complex nature. Plans, directs and supervises all operations included in programs and projects. Manages and leads the overall project and the project team including all technical and financial. Has demonstrated the capability to manage a large project of high complexity. Leads and manages the project team through all phases of project planning, execution, and closeout, consistent with established project delivery processes to the meet the scope, schedule, budget and other specified requirements.	15 - 20 years	Bachelor degree required. Engineering degree preferred	PMP or equivalent preferred.	\$ 97.53	\$ 6.92	\$ 9.26	\$ 1.55	\$ 6.62	\$ 0.85	\$ 6.62	\$ 27.89	\$ 9.75	\$ 16.19	\$ 15.64	\$ 37.64	\$ 167.00	
Engineering Project Manager IV	Oversees projects of a large nature. Plans, directs and supervises all operations included in programs and projects. Manages and leads the overall project and the project team including all technical and financial. Has demonstrated the capability to manage a large project. Leads and manages the project team through all phases of project planning, execution, and closeout, consistent with established project delivery processes to the meet the scope, schedule, budget and other specified requirements.	>20 years	Bachelor degree required. Engineering degree preferred	PMP or equivalent preferred.	\$ 102.20	\$ 7.26	\$ 9.71	\$ 1.62	\$ 6.94	\$ 0.90	\$ 6.94	\$ 29.23	\$ 10.22	\$ 16.96	\$ 16.39	\$ 39.45	\$ 175.00	
Cost Estimator I	Researches, analyzes and compiles program information for estimating project costs of moderate complex nature. Maintains construction cost data and utilizes it to develop and prepare construction functional estimates for projects. Develops preliminary cost projections for budget or funding purposes. Additional responsibilities include reviewing and approving contractor prepared bids, schedules and construction methods. May also conduct site visits to assess prior estimates and to increase the accuracy of future construction functional estimates. This position prepares the entire detailed cost estimate for every phase of the project and prepares the Job Estimate used for project authorization. Prepares the Basis of Estimate for the Job Estimate and participates in any quantitative risk analysis used for determining risk and/or contingency. This position works with multiple stakeholders, assisting project managers with estimating during project construction and contributes toward Safety Excellence goals by improving safety, reliability and affordability for one or more asset families and one or more life cycles. This position prepares the Settlement & Retirement Sheet as part of the Job Estimate to be used for determining settlement rules.	3-5 years	Bachelor degree in Construction Management, Engineering, Project Management or related technical field preferred, or equivalent experience.	N/A	\$ 55.48	\$ 3.94	\$ 5.27	\$ 0.88	\$ 3.77	\$ 0.49	\$ 3.77	\$ 15.87	\$ 5.55	\$ 9.21	\$ 8.90	\$ 21.41	\$ 95.00	
Cost Estimator II	Researches, analyzes and compiles program information for estimating project costs for moderate of complex projects. Maintains construction cost data and utilizes it to develop and prepare construction functional estimates for projects. Develops preliminary cost projections for budget or funding purposes. Additional responsibilities include reviewing and approving contractor prepared bids, schedules and construction methods. May also conduct site visits to assess prior estimates and to increase the accuracy of future construction functional estimates. This position prepares the entire detailed cost estimate for every phase of the project and prepares the Job Estimate used for project authorization. Prepares the Basis of Estimate for the Job Estimate and participates in any quantitative risk analysis used for determining risk and/or contingency. This position works with multiple stakeholders, assisting project managers with estimating during project construction and contributes toward Safety Excellence goals by improving safety, reliability and affordability for one or more asset families and one or more life cycles. This position prepares the Settlement & Retirement Sheet as part of the Job Estimate to be used for determining settlement rules.	5-8 years	Bachelor degree in Construction Management, Engineering, Project Management or related technical field preferred, or equivalent experience.	N/A	\$ 68.33	\$ 4.85	\$ 6.49	\$ 1.08	\$ 4.64	\$ 0.60	\$ 4.64	\$ 19.54	\$ 6.83	\$ 11.34	\$ 10.96	\$ 26.37	\$ 117.00	
Cost Estimator III	Researches, analyzes and compiles program information for estimating project costs for large / complex projects. Maintains construction cost data and utilizes it to develop and prepare construction functional estimates for projects. Develops preliminary cost projections for budget or funding purposes. Additional responsibilities include reviewing and approving contractor prepared bids, schedules and construction methods. May also conduct site visits to assess prior estimates and to increase the accuracy of future construction functional estimates. This position prepares the entire detailed cost estimate for every phase of the project and prepares the Job Estimate used for project authorization. Prepares the Basis of Estimate for the Job Estimate and participates in any quantitative risk analysis used for determining risk and/or contingency. This position works with multiple stakeholders, assisting project managers with estimating during project construction and contributes toward Safety Excellence goals by improving safety, reliability and affordability for one or more asset families and one or more life cycles. This position prepares the Settlement & Retirement Sheet as part of the Job Estimate to be used for determining settlement rules.	8-10 years	Bachelor degree in Construction Management, Engineering, Project Management or related technical field preferred, or equivalent experience.	Membership in AACE , AACE certification preferred	\$ 80.01	\$ 5.68	\$ 7.60	\$ 1.27	\$ 5.43	\$ 0.70	\$ 5.43	\$ 22.88	\$ 8.00	\$ 13.28	\$ 12.83	\$ 30.88	\$ 137.00	
Cost Estimator IV	Researches, analyzes and compiles program information for estimating project costs for large / highly complex projects. Maintains construction cost data and utilizes it to develop and prepare construction functional estimates for projects. Develops preliminary cost projections for budget or funding purposes. Additional responsibilities include reviewing and approving contractor prepared bids, schedules and construction methods. May also conduct site visits to assess prior estimates and to increase the accuracy of future construction functional estimates. This position prepares the entire detailed cost estimate for every phase of the project and prepares the Job Estimate used for project authorization. Prepares the Basis of Estimate for the Job Estimate and participates in any quantitative risk analysis used for determining risk and/or contingency. This position works with multiple stakeholders, assisting project managers with estimating during project construction and contributes toward Safety Excellence goals by improving safety, reliability and affordability for one or more asset families and one or more life cycles. This position prepares the Settlement & Retirement Sheet as part of the Job Estimate to be used for determining settlement rules.	> 10 years	Bachelor degree in Construction Management, Engineering, Project Management or related technical field preferred, or equivalent experience.	Membership in AACE , AACE certification preferred	\$ 85.85	\$ 6.10	\$ 8.16	\$ 1.36	\$ 5.83	\$ 0.75	\$ 5.83	\$ 24.55	\$ 8.58	\$ 14.25	\$ 13.77	\$ 33.14	\$ 147.00	
Geotechnical Engineer (Associate)					\$ 63.07	\$ 4.48	\$ 5.99	\$ 1.00	\$ 4.28	\$ 0.55	\$ 4.28	\$ 18.04	\$ 6.31	\$ 10.47	\$ 10.12	\$ 24.35	\$ 108.00	
Geotechnical Engineer (Engineer)					\$ 71.83	\$ 5.10	\$ 6.82	\$ 1.14	\$ 4.88	\$ 0.63	\$ 4.88	\$ 20.54	\$ 7.18	\$ 11.92	\$ 11.52	\$ 27.73	\$ 123.00	
Geotechnical Engineer (Senior)					\$ 89.35	\$ 6.34	\$ 8.49	\$ 1.42	\$ 6.07	\$ 0.78	\$ 6.07	\$ 25.55	\$ 8.93	\$ 14.83	\$ 14.33	\$ 34.49	\$ 153.00	
Geotechnical Engineer (Expert)					\$ 102.20	\$ 7.26	\$ 9.71	\$ 1.62	\$ 6.94	\$ 0.90	\$ 6.94	\$ 29.23	\$ 10.22	\$ 16.96	\$ 16.39	\$ 39.45	\$ 175.00	
Geotechnical Project Engineer (Principal)					\$ 117.96	\$ 8.38	\$ 11.21	\$ 1.87	\$ 8.01	\$ 1.03	\$ 8.01	\$ 33.74	\$ 11.80	\$ 19.58	\$ 18.92	\$ 45.53	\$ 202.00	

Attachment 4: Discounts and Markup Structure

1. PG&E shall be entitled to Volume Discounts or equivalent Rebate as specified herein and in Discounts and Markup Structure. Volume Discounts are in addition to and not in lieu of the early payment discount terms as specified in the General Conditions.

Volume Discount Definitions:

- Annual Billing Level: The total of all amounts PG&E owes Contractor for Work performed on Contract Work Authorization(s) (CWA) under the Master Service Agreement (MSA) within the Annual Billing Period.
- Annual Billing Period: The calendar year commencing on January 1st and ending on December 31st.
- Volume Discount Threshold: The dollar amount reached within the Annual Billing Period which determines the percentage discount applied to remaining invoicing in the Annual Billing Period.

2. Early Payment Discount: Contractor agrees to the early payment discount rates, specified and the General Conditions. The early payment discounts shall apply to all invoices paid by PG&E within the time-frame specified. If Contractor submits an incorrect or inaccurate invoice, Contractor shall resubmit a corrected invoice. In that event, the early payment discount shall be calculated based on the date that the corrected invoice is received by PG&E.

3. Volume Discount: Contractor agrees to discount invoiced amounts based on the total dollar volume (Annual Billing Level) of Work reached within the Annual Billing Period defined herein. Volume discounts shall be applied incrementally to invoicing, in accordance with the Volume Discount Threshold as specified herein. The annual Billing Level shall be calculated on a calendar year basis starting on January 1st and ending on December 31st. Every January 1st during the term of this Contract, the Annual Billing Level shall reset to zero (0) for the purposes of applying this volume discount provision.

4. Volume Rebate: In lieu of the Volume Discount method applied to invoicing, PG&E, at its discretion, may elect to receive an annual discount of same value in total in the form of a rebate check due no later than December 15th.

Validation Process

Approved time data accumulated by Contractor on a detailed Labor Cost Breakdown or Labor, Material, and Equipment (LM&E) form for construction work, or similar PG&E approved Time and Material log.

A. Validation of the following components must be completed before invoices are submitted to PG&E for approval:

- PO/CWA fully signed (existing)
- Order numbers (existing)
- Labor count verified
- Labor hours verified
- Determination of Authority (DOA)

B. Invoice Period: Contractor shall track and provide running totals of spend during the Annual Billing Period, which PG&E will also track. Contractor shall notify in writing the CWA Work Supervisor(s) when each threshold is reached. The applicable discount shall be applied to all invoices based on the threshold as specified.

C. Contractor is responsible for tracking the Annual Billing Level, notifying PG&E in writing, and applying the corresponding Volume Discount to invoicing. Any discounts that are missed or withheld for any reason shall be trued up and credited to corresponding CWAs or reimbursed in full. Notwithstanding, PG&E reserves the right to perform third party audit to claim any withheld discounts in the previous Annual Billing Period.

Attachment 4: Discounts and Markup Structure		
	Metric/Range of Values	Discount Rates
Extended Term Contract: Discount if Awarded up to 5-Year Contract. Discount Applied from Year 1 of Contract		
	Year 1	0%
	Year 2	0%
	Year 3	1.5%-3% (CPI)
	Year 4	1.5%-3% (CPI)
	Year 5	1.5%-3% (CPI)
Early Payment Discounts: Discount if Payment Terms are changed from 2% 15 Days, Net 45 Days Posting Date		
		2% 15 Days / Net 45
Volume Discount Thresholds: Discount once Annual Dollar Discount Level is Reached		
	\$1 to \$499,999	0.0%
	\$500,000 to \$749,999	0.0%
	\$750,000 to \$999,999	0.0%
	\$1,000,000 to \$1,999,999	1.0%
	\$2,000,000 to \$4,999,999	2.0%
	\$5,000,000 to \$9,999,999	3.0%
	\$10,000,000 to \$14,999,999	3.0%
	\$15,000,000 to \$19,999,999	3.0%
	\$20,000,000 to \$24,999,999	3.0%
	\$25,000,000 and Above	3.0%
Contract Escalation: Will Agree not to raise Rates During First 3 Years of Contract. If Rate is Subject to an Increase in Years 4 and 5, Contractor Agrees to Cap on Increase Equal to Increase of CPI over Previous Calendar Year less 1.5% with a Maximum Cap of 3%		
	Year 1	0%
	Year 2	0%
	Year 3	0%
	Year 4	CPI - 1.5%; Cap 3%
	Year 5	CPI - 1.5%; Cap 3%
Subcontractor/Equipment Markups: Maximum Markup on Subcontractor Labor Rates and Equipment Rates (Owned and Rental)		
	Consulting Subcontractors	5%
	Construction Subcontractors	5%
	Equipment (Owned)	Per Rate Sheet
	Equipment (Rental)	5%
Material Markups: Maximum Markup on Purchases of Material by Both Contractor and Subcontractor. Maximum Markup on First \$50,000 of Material Purchases - No Markup on Single Material Purchases greater than \$50,000		
	Purchases up to \$9,999	5%
	Purchases from \$10,000 to \$19,999	5%
	Purchases from \$20,000 to \$29,999	5%
	Purchases from \$30,000 to \$39,999	5%
	Purchases from \$40,000 to \$49,999	5%
	No Additional Markup on Purchases Exceeding \$50,000	5%
Other Discounts: Discounts for co-location of contractor's personnel, discount for direct award of CWA exceeding \$1MM, etc.		